

**Data Quality Evaluation and Data Extraction Information for  
Physical and Chemical Properties for  
1,2-Dichloroethane**

**Systematic Review Support Document for the Risk Evaluation**

**CASRN: 107-06-2**



*April 2026*

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This supplemental file contains information regarding the data extraction and evaluation results for data sources that were considered for the *Risk Evaluation for 1,2-Dichloroethane* that underwent systematic review. EPA used the TSCA systematic review process described in the *Draft Systematic Review Protocol Supporting TSCA Risk Evaluations for Chemical Substances* (also referred to as the '2021 Draft Systematic Review Protocol'). The systematic review steps are further described in the *Systematic Review Protocol for 1,2-Dichloroethane*. EPA conducted data extractions and data quality evaluations based on author-reported descriptions and results; additional analyses (*e.g.*, statistical analyses) potentially conducted by EPA are not contained in this supplemental file. Additionally, the overall quality determination (OQD) for each reference represents the data as a whole for each study, and not for individual metric domains within a study.

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<b>4698002</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2009). Studies on transport and thermodynamic properties of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. Journal of Molecular Liquids 144(3):163-171.	<b>247</b>
<b>4293766</b>	Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.	<b>248</b>
<b>5926415</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..	<b>249</b>
<b>5175150</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).	<b>250</b>
<b>3572605</b>	Ilokhani, H., Samiey, B. (2005). Studies of viscosities and excess molar volumes of the binary mixtures of 1-heptanol plus 1,2-dichloroethane, plus 1,1,1-trichloroethane, plus 1,1,2,2-tetrachloroethane, plus trichloroethylene and tetrachloroethylene at (293.15, 298.15, and 303.15) K for the liquid region and at ambient pressure. Journal of Chemical and Engineering Data 50(6):1911-1916.	<b>251</b>
<b>3571059</b>	Joshi, S. S., Aminabhavi, T. M., Shukla, S. S. (1991). Densities and viscosities of binary-mixtures of bromoform with anisole, acetophenone, ethyl benzoate, 1,2-dichloroethane and 1,1,2,2-tetrachloro-ethane from 298.15 to 313.15K. Indian Journal of Technology 29(7):319-326.	<b>252</b>

<b>3570912</b>	Krishnaiah, A., Surendranath, K. N. (1996). Densities, speeds of sound, and viscosities of mixtures of oxolane with chloroethanes and chloroethenes. <i>Journal of Chemical and Engineering Data</i> 41(5):1012-1014.	<b>253</b>
<b>2113544</b>	Mussari, L., Postigo, M., Lafuente, C., Royo, F. M., Urieta, J. S. (2000). Viscosity measurements for the binary mixtures of 1,2-dichloroethane or 1,2-dibromoethane with isomeric butanols. <i>Journal of Chemical and Engineering Data</i> 45(1):86-91.	<b>254</b>
<b>4723945</b>	Oswal, S. L., Patel, I. N., Modi, P. S., Barad, S. A. (2000). Viscosities and excess molar volumes of binary mixtures of alkyl acetates with di-, tri-, and tetrachloroethane. <i>International Journal of Thermophysics</i> 21(3):681-694.	<b>255</b>
<b>1189101</b>	Prakash, D. J., Lakshmi, D. S., Rao, M. V., Prasad, L., D.H. (1996). Density and viscosity of methanol plus 1,2-dichloroethane, methanol plus 1,1,1-trichloroethane, and methanol plus 1,1,2,2-tetrachloroethane mixtures. <i>Physics and Chemistry of Liquids</i> 33(4):249-254.	<b>256</b>
<b>5932747</b>	Rumble, J. R. (2018). Viscosity of liquids. :6-234 - 6-237.	<b>257</b>
<b>4698408</b>	Sathyaranayana, B., Ranjithkumar, B., Jyostna, T. S., Satyanarayana, N. (2007). Densities and viscosities of binary liquid mixtures of N-methylacetamide with some chloroethanes and chloroethenes at T=308.15 K. <i>Journal of Chemical Thermodynamics</i> 39(1):16-21.	<b>258</b>
<b>3827414</b>	Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.	<b>259</b>
<b>Refractive Index</b>		
<b>4700992</b>	Ali, A., Tariq, M. (2008). Deviations in refractive index parameters and applicability of mixing rules in binary mixtures of benzene+1,2-dichloroethane at different temperatures. <i>Chemical Engineering Communications</i> 195(1):43-56.	<b>260</b>
<b>4698000</b>	Bhatia, S. C., Bhatia, R., Dubey, G. R. (2009). Refractive properties and internal pressures of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. <i>Journal of Molecular Liquids</i> 145(2):88-102.	<b>261</b>
<b>3116913</b>	Dragoescu, D., Gheorghe, D., Bendova, M., Wagner, Z. (2015). Speeds of sound, isentropic compressibilities and refractive indices for some binary mixtures of nitromethane with chloroalkane at temperatures from 298.15 to 318.15 K. Comparison with theories. <i>Fluid Phase Equilibria</i> 385(Elsevier):105-119.	<b>262</b>
<b>4293766</b>	Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.	<b>263</b>
<b>5926415</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..	<b>264</b>
<b>5446160</b>	Gutsche, B., Knapp, H. (1982). Isothermal measurements of vapor-liquid equilibria for three n-alkane-chloroalkane mixtures. <i>Fluid Phase Equilibria</i> 8(3):285-300.	<b>265</b>
<b>5175150</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).	<b>266</b>
<b>4700247</b>	Houkhani, H., Parsa, J. B., Hatami, M. (2008). Physico-chemical properties of binary mixtures of 1-butanol with chloroethanes or chloroethenes at 298.15 K. <i>Physics and Chemistry of Liquids</i> 46(5):495-503.	<b>267</b>
<b>3828879</b>	Marshall, K. A., Pottenger, L. H. (2016). Chlorocarbons and chlorohydrocarbons. :1-29.	<b>268</b>
<b>5926380</b>	O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.	<b>269</b>
<b>1189101</b>	Prakash, D. J., Lakshmi, D. S., Rao, M. V., Prasad, L., D.H. (1996). Density and viscosity of methanol plus 1,2-dichloroethane, methanol plus 1,1,1-trichloroethane, and methanol plus 1,1,2,2-tetrachloroethane mixtures. <i>Physics and Chemistry of Liquids</i> 33(4):249-254.	<b>270</b>
<b>5926370</b>	Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.	<b>271</b>
<b>5440824</b>	Sivaramprasad, G., Rao, M. V., Prasad, L., D.H. (1990). Density and viscosity of ethanol + 1,2-dichloroethane, ethanol + 1,1,1-trichloroethane, and ethanol + 1,1,2,2-tetrachloroethane binary-mixtures. <i>Journal of Chemical and Engineering Data</i> 35(2):122-124.	<b>272</b>
<b>4699966</b>	Teodorescu, M., Secuianu, C. (2013). Refractive indices measurement and correlation for selected binary systems of various polarities at 25 a degrees C. <i>Journal of Solution Chemistry</i> 42(10):1912-1934.	<b>273</b>
<b>Henry's Law</b>		
<b>7310487</b>	Canada, G.o. (2021). Fact sheet: 1,2-dichloroethane.	<b>274</b>

<b>1739466</b>	Chen, F.,ei, Freedman, D. L., Falta, R. W., Murdoch, L. C. (2012). Henry's law constants of chlorinated solvents at elevated temperatures. <i>Chemosphere</i> 86(2):156-165.	<b>275</b>
<b>5160047</b>	EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.	<b>276</b>
<b>5441348</b>	Hovorka, S., Dohnal, V. (1997). Determination of air-water partitioning of volatile halogenated hydrocarbons by the inert gas stripping method. <i>Journal of Chemical and Engineering Data</i> 42(5):924-933.	<b>277</b>
<b>5175150</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).	<b>279</b>
<b>10225171</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.	<b>280</b>
<b>5159900</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.	<b>281</b>
<b>5932745</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.	<b>287</b>
<b>5926142</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..	<b>288</b>
<b>Nanomaterial Zeta</b>		
<b>Dielectric Constant</b>		
<b>4149156</b>	Corradini, F., Marchetti, A., Preti, C., Tagliazucchi, M., Tassi, L. (1995). Dielectric properties of binary mixtures of 1,2-dichloroethane plus ethane-1,2-diol and 1,2-dichloroethane plus 2-methoxyethanol. <i>Australian Journal of Chemistry</i> 48(9):1541-1548.	<b>289</b>
<b>5926415</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..	<b>291</b>
<b>5175150</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).	<b>292</b>
<b>4698126</b>	Pawar, V. P. (2006). Dielectric relaxation of propan-1-ol with chlorobenzene, 1,2-dichloroethane, and dimethylene chloride at (288, 298, 308, and 318) K using time-domain reflectometry technique. <i>Journal of Chemical and Engineering Data</i> 51(3):882-885.	<b>293</b>
<b>1161074</b>	Pawar, V. P., Mehrotra, S. C. (2002). Dielectric relaxation study of chloro group with associative liquids. II. 1,2-dichloroethane with methanol, ethanol, and 1-propanol. <i>Journal of Solution Chemistry</i> 31(7):577-588.	<b>294</b>
<b>UV and Visible Absorption</b>		
<b>Other Properties</b>		
<b>4293766</b>	Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.	<b>298</b>
<b>7325487</b>	U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.	<b>299</b>
<b>5442746</b>	Wallington, T. J., Bilde, M., Mogelberg, T. E., Sehested, J., Nielsen, O. J. (1996). Atmospheric chemistry of 1,2-dichloroethane: UV spectra of CH <sub>2</sub> ClCHCl and CH <sub>2</sub> ClCHClO <sub>2</sub> radicals, kinetics of the reactions of CH <sub>2</sub> ClCHCl radicals with O-2 and CH <sub>2</sub> ClCHClO <sub>2</sub> radicals with NO and NO <sub>2</sub> , and fate of the alkoxy radical CH <sub>2</sub> ClCHClO. <i>Journal of Physical Chemistry</i> 100(14):5751-5760.	<b>301</b>
<b>Miscellaneous</b>		
<b>List of Abbreviations and Acronyms for Data Quality Evaluation and Extraction Tables</b>		<b>302</b>

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Physical Form or State
<b>HERO ID:</b>	7681894

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Value	liquid
Results Details	clear, colorless and oily; chloroform-like odor

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** DOE, (2016). Table 1: Chemicals of concern and associated chemical information. PACs.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 3981013

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Value	liquid
Results Details	not specified

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review; specific source not reported.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: primary reference not specified but include CRC (2009), HSDB (no date), Merck (2006), SAX (2012)

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; Not reported
Confidentiality, Type, and Guideline	None; Experimental; No guideline
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Liquid; Not reported Notes: Not reported
Results Value	Clear liquid
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5160047

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Value	liquid
Results Details	colorless; flammable; sweet, chloroform-like odor

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Sax and Lewis, 1987

<b>Study Citation:</b>	NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.
<b>OECD Harmonized Template:</b>	Physical Form or State
<b>HERO ID:</b>	9641339

EXTRACTION	
Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; Not Reported Notes: NR
Results Value	Clear liquid at ambient temperatures
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other				
	Metric 5:	Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary source HEROID 4293766

**Study Citation:** NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 9641339

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; Not Reported Notes: NR
Results Value	Colorless liquid [Note: Decomposes slowly, becomes acidic & darkens in color]
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary source: NIOSH. NIOSH Pocket Guide to Chemical Hazards. Department of Health & Human Services, Centers for Disease Control & Prevention. National Institute for Occupational Safety & Health. DHHS (NIOSH) Publication No. 2010-168 (2010). Available from: <http://www.cdc.gov/niosh/npg> Precursor to HERO ID 7310492

**Study Citation:** NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 9641339

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; Not Reported Notes: NR
Results Value	Colorless, oily liquid
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	Medium	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary source: Larranaga, M.D., Lewis, R.J. Sr., Lewis, R.A.; Hawley's Condensed Chemical Dictionary 16th Edition. John Wiley & Sons, Inc. Hoboken, NJ 2016., p. 583 (HEROID 5349248)

<b>Study Citation:</b>	NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.
<b>OECD Harmonized Template:</b>	Physical Form or State
<b>HERO ID:</b>	9641339

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported Notes: Odor: pleasant odor
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Cites secondary source: HEROID 5926380

**Study Citation:** NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 9641339

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported Notes: Odor: Chloroform-like odor
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance			
	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability			
	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other			
	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Cites secondary source: Larranaga, M.D., Lewis, R.J. Sr., Lewis, R.A.; Hawley's Condensed Chemical Dictionary 16th Edition. John Wiley & Sons, Inc. Hoboken, NJ 2016., p. 583 (HEROID 5349248)

**Study Citation:** NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 9641339

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported Notes: Odor: Sweet
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Cites secondary source: Ruth JH; Am Ind Hyg Assoc J 47: A-142-51 (1986) (HEORID 62802)

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; Liquid; NR Notes: NR
Results Value	Colorless liquid; pleasant, chloroform-like odor
Results Details	Decomposes slowly and becomes acidic & darkens in color

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Value	heavy liquid
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance			
	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability			
	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other			
	Metric 5: Databases	High	Data is from a publicly available and peer-reviewed database.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: O'Neil, M.J. (Ed.) The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biological. Cambridge, UK: Royal Society of Chemistry, 2013. p. 702.

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Value	heavy liquid
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance			
	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability			
	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other			
	Metric 5: Databases	High	Data is from a recognized data collection where data are peer-reviewed by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5926370

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Value	liquid
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance			
	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability			
	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other			
	Metric 5: Databases	High	Data is from a recognized data collection where data are peer-reviewed by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details	clearly, colorless, oily liquid

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available and peer-reviewed database.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: IARC. 1997. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Geneva: World Health Organization, International Agency for Research on Cancer

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Physical Form or State  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details	pleasant, chloroform like scent

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available and peer-reviewed database.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH. NIOSH Pocket Guide to Chemical Hazards. Department of Health & Human Services, Center for Disease Control & Prevention. National Institute for Occupational Safety & Health. DHHS (NIOSH).

<b>Study Citation:</b>	CalEPA, (2008). TSD for noncancer RELs - Appendix D.3 Chronic RELs and toxicity summaries using the previous version of the Hot Spots Risk Assessment guidelines (OEHHA 1999).
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	628645

**EXTRACTION**

Parameter	Data
Melting Point	-96.9 °C
CASRN and Test Material	107-06-2; ethylene dichloride
Confidentiality, Type, and Guideline	none; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	None; NR; liquid; NR
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	this is melting point for 1,1-DCA not 1,2-DCA

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	Medium	Data are measured for a structural analogue of the subject chemical substance.
	Metric 2: Appropriateness	Medium	Data measured for a structural analogue of the subject chemical substance are consistent with what is expected for the subject chemical substance structural properties, features or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Uninformative	The data are from a known source but are the incorrect data.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Uninformative**

\* Related References: Gray lit referencing HSDB 2000 and CRC 1994; HEROID: 5926111 for HSDB (2018) and HEROID: 5926370 for CRC (2018) report MP of -35.6°C

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	7681894

**EXTRACTION**

Parameter	Data
Melting Point	= -35.7 °C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	not specified
Standard Deviation Results	not specified
Results Details	not specified

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Source cited: Lide, 2011

**Study Citation:** DOE, (2016). Table 1: Chemicals of concern and associated chemical information. PACs.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 3981013

**EXTRACTION**

Parameter	Data
Melting Point	-35.7 - °C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; none
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Details Methods	not reported
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review; specific source not reported.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: primary reference not specified but include CRC (2009), HSDB (no date), Merck (2006), SAX (2012)

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Melting Point	-35.3 °C
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Results Details Methods	Not reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Melting Point	-36 - -34.97 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Measured conditions were not reported; 8 values were reported in Reaxys; 6 of these values were reported in the range of -36 to -34.97°C; 2 data points were outside the range.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

<b>Study Citation:</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5175150

**EXTRACTION**

Parameter	Data
Melting Point	-35.6 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Haynes, W.M. (Ed.). CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 3-162.

**Study Citation:** Marshall, K. A., Pottenger, L. H. (2016). Chlorocarbons and chlorohydrocarbons. :1-29.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 3828879

**EXTRACTION**

Parameter	Data
Melting Point	-35.7 - °C
CASRN and Test Material	107-06-02; Not Reported
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to information from this secondary source.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to information from this secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Melting Point	-32 F
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Details Methods	NR
Standard Deviation Results	NR
Results Details	Reported as freezing point

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926380

**EXTRACTION**

Parameter	Data
Melting Point	ca. -40 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	RSC, (2019). ChemSpider: 1,2-Dichloroethane.
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926257

EXTRACTION	
Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

Domain		EVALUATION		Comments
	Metric	Rating		
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Oakwood

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Biosynth

<b>Study Citation:</b>	Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926370

**EXTRACTION**

Parameter	Data
Melting Point	-35.6 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 3827414

**EXTRACTION**

Parameter	Data
Melting Point	= -35.3 - °C
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2.  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 5926142

**EXTRACTION**

Parameter	Data
Melting Point	-35.5 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to the original, peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

**EXTRACTION**

<b>Parameter</b>	<b>Data</b>
Melting Point	-35.6 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

EXTRACTION	
Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Jean-Claude Bradley Open Melting Point Dataset

**Study Citation:** U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..  
**OECD Harmonized Template:** Melting Point  
**HERO ID:** 5926142

EXTRACTION	
Parameter	Data
Melting Point	-36 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Jean-Claude Bradley Open Melting Point Dataset

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

EXTRACTION	
Parameter	Data
Melting Point	-35.5 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Jean-Claude Bradley Open Melting Point Dataset

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: SynQuest

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

EXTRACTION	
Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.	
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**Medium**

\* Related References: SynQuest

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: SynQuest

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926142

EXTRACTION	
Parameter	Data
Melting Point	-35 °C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Details Methods	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.	
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**Medium**

\* Related References: Alfa Aesar

<b>Study Citation:</b>	U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	7325487

EXTRACTION	
Parameter	Data
Melting Point	-35.3 - °C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Details Methods	NR
Standard Deviation Results	NR
Results Details	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

<b>Study Citation:</b>	CalEPA, (2008). TSD for noncancer RELs - Appendix D.3 Chronic RELs and toxicity summaries using the previous version of the Hot Spots Risk Assessment guidelines (OEHHA 1999).
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	628645

**EXTRACTION**

Parameter	Data
Boiling Point	57.4 C
CASRN and Test Material	107-06-2; ethylene dichloride
Confidentiality, Type, and Guideline	none; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	None; NR; liquid; NR
Standard Deviation Results	Not Reported
Results Details	this is boiling point for 1,1-DCA not 1,2-DCA

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	Medium	Data are measured for a structural analogue of the subject chemical substance.
	Metric 2: Appropriateness	Medium	Data measured for a structural analogue of the subject chemical substance are consistent with what is expected for the subject chemical substance structural properties, features or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Uninformative	The data are from a known source but are the incorrect data.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Uninformative**

\* Related References: Gray lit referencing HSDB 2000 and CRC 1994; HEROID: 5926111 for HSDB (2018) and HEROID: 5926370 for CRC (2018) report BP of 83.4°C

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	7681894

**EXTRACTION**

Parameter	Data
Boiling Point	83.5 C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	not specified
Results Details	not specified

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Source cited: Lide, 2011

<b>Study Citation:</b>	DOE, (2016). Table 1: Chemicals of concern and associated chemical information. PACs.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	3981013

**EXTRACTION**

Parameter	Data
Boiling Point	83.5 - C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Standard Deviation Results	not reported
Results Details	@ 760 mm Hg

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review; specific source not reported.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: primary reference not specified but include CRC (2009), HSDB (no date), Merck (2006), SAX (2012)

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Boiling Point	83.7 C
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Standard Deviation Results	Not reported
Results Details	Boiling point at 101.3 kPa

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Boiling Point	83.38 - 85.48 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	@ 760 torr; 65 values were reported in Reaxys; 11 of these values were reported in the range of 83.38 to 85.48 C at 760 torr; 54 value was outside this range or measured at unreported or non-standard pressures.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

<b>Study Citation:</b>	Gutsche, B., Knapp, H. (1982). Isothermal measurements of vapor-liquid equilibria for three n-alkane-chloroalkane mixtures. Fluid Phase Equilibria 8(3):285-300.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5446160

**EXTRACTION**

Parameter	Data
Boiling Point	356.63 K
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; analytical grade
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or out outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the inclusion in a peer-reviewed data from a secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this type of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Boiling Point	83.4 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Haynes, W.M. (Ed.). CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 3-162.

<b>Study Citation:</b>	Krishnaiah, A., Surendranath, K. N. (1996). Densities, speeds of sound, and viscosities of mixtures of oxolane with chloroethanes and chloroethenes. Journal of Chemical and Engineering Data 41(5):1012-1014.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	3570912

**EXTRACTION**

Parameter	Data
Boiling Point	356.70 K
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; purity of the samples was checked by comparing the measured densities, viscosities at 303.15 K, and boiling points with those in Riddick, J. A. et al. Organic Solvents-Physical Properties and Methods of Purification; Wiley: New York, 1986.
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's comparison to a peer-reviewed secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Marshall, K. A., Pottenger, L. H. (2016). Chlorocarbons and chlorohydrocarbons. :1-29.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 3828879

**EXTRACTION**

Parameter	Data
Boiling Point	83.5 - C
CASRN and Test Material	107-06-02; Not Reported
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to information from this secondary source.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to information from this secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review
	Metric 6: Models	Low	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Boiling Point	182 - F
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; None
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Standard Deviation Results	NR
Results Details	at 1 atmosphere

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.62 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.3 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 5441071) Kumar, B.; Raju, K.S.N., Vapor-liquid equilibria systems 1,2-dichloroethane - ethylbenzene and 1,2-dichloroethane - p-xylene, J. Chem. Eng. Data, 1972, 17, 438.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.70 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.3 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: HERO ID 3570912; Krishnaiah, A.; Surendranath, K.N., Densities, Speeds of Sound, and Viscosities of Mixtures of Oxolane with Chloroethanes and Chloroethenes, J. Chem. Eng. Data, 1996, 41, 1012-1014.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.63 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.2 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 5440427) Paul, H.-I.; Krug, J.; Gutsche, B.; Knapp, H., Measurements of VLE, hE, and vE for Binary Mixtures of Dibutyl Ether with 1-Chloropentane, 1,2-Dichloroethane, and 1,1,1-Trichloroethane trichloroethane, J. Chem. Eng. Data, 1986, 31, 448.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	357.2 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.4 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 5441081) Joshi, S.S.; Aminabhavi, T.M.; Shukla, S.S., Densities and Shear Viscosities of Anisole with Nitrobenzene, Chlorobenzene Carbon Tetrachloride, 1,2-Dichloroethane and Cyclohexane from 25 to 40 C from 25 to 40.degree.C, J. Chem. Eng. Data, 1990, 35, 247-53.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.6 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.; review cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****Medium**

\* Related References: Source cited: (HERO ID not found) Majer, V.; Svoboda, V., Enthalpies of Vaporization of Organic Compounds: A Critical Review and Data Compilation, Blackwell Scientific Publications, Oxford, 1985, 300.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.55 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.4 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	Not applicable to this type of data.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 5440387) Krishnaiah, A.; Choudary, N.V., Activity Coefficients and Excess Gibbs Free Energies of 1,2-Dichloro- ethane with Isomeric Butanols, J. Chem. Eng. Data, 1987, 32, 196.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.65 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.2 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 5440823) Mato, F.; Gonzalez, G.; Arroyo, F.J., Vapor-Liquid Equilibria at 760 mmHg in the Binary Systems Cyclohexene- 1,2-Dichloroethane and Cyclohexane-1,2-Dichloroethane, J. Chem. Eng. Data, 1989, 34, 179.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.7 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: CRC Handbook of Data on Organic Compounds, 2nd Edition, Weast,R.C and Grasselli, J.G., ed(s)., CRC Press, Inc., Boca Raton, FL, 1989, 1.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.65 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.4 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID 2800010) McGovern, E.W., Chlorohydrocarbon Solvents, Ind. Eng. Chem., 1943, 35, 1230-9

**Study Citation:** NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.7 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.3 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID not found) Fort, R.J.; Moore, W.R., Adiabatic compressibilities of binary liquid mixtures, Trans. Faraday Soc., 1965, 61, 2102.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.50 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.3 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID not found) Surendranath, K.N.; Ramanjaneyulu, K.; Krishnaiah, A., Viscosities of binary liquid mixtures of acetonitrile with chlorinated ethanes and ethylenes at 303.15 K, Indian J. Technol., 1988, 26, 379-82.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	10225171

**EXTRACTION**

Parameter	Data
Boiling Point	356.65 - K
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Uncertainty assigned by Thermodynamics Research Center, NIST Boulder Laboratories, Chris Muzny director = 0.2 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a recognized data collection where data are peer-reviewed by experts in the field; primary source cited.
	Metric 6: Models	N/A	Not applicable to this type of data.

**Overall Quality Determination****High**

\* Related References: Source cited: (HERO ID not found) JagannadhaRao, Y.; Viswanath, D.S., Integral isobaric heat of vaporization of benzene + 1,2-dichloroethane system, J. Chem. Eng. Data, 1973, 18, 49-50

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
Boiling Point	83 - 84 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Pearce, J. N., Peters, P. E. (1929). The vapor pressure of ethylene chloride between -30° and 100°. Journal of Physical Chemistry 33(6):873-878.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 9088640

**EXTRACTION**

Parameter	Data
Boiling Point	= - 84.1 C
CASRN and Test Material	not reported; ethylene chloride
Confidentiality, Type, and Guideline	none; interpolation; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Eastman; NR; NR Notes: NR
Standard Deviation Results	not reported
Results Details	Boiling point obtained from the interpolation of a large scale plot of the experimental vapor pressure-temperature curve. Critical temperature reported as 321.9°C.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Boiling Point	83 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Oakwood

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Boiling Point	83.5 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Biosynth

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Boiling Point	83 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: LabNetwork

<b>Study Citation:</b>	Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	6655446

**EXTRACTION**

Parameter	Data
Boiling Point	83.4
CASRN and Test Material	Not Reported; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Standard Deviation Results	Not reported
Results Details	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926370

**EXTRACTION**

Parameter	Data
Boiling Point	83.4 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	3827414

**EXTRACTION**

Parameter	Data
Boiling Point	= 83.7 - C
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Boiling Point	83.5 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to the original, peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Boiling Point	83.3 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926142

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Boiling Point	83 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

## Medium

\* Related References: Alfa Aesar

**Study Citation:** U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 5926142

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Boiling Point	83 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Alfa Aesar

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5926142

EXTRACTION	
Parameter	Data
Boiling Point	83 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: SynQuest

**Study Citation:** U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.  
**OECD Harmonized Template:** Boiling Point  
**HERO ID:** 7325487

**EXTRACTION**

Parameter	Data
Boiling Point	83.7 - C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

<b>Study Citation:</b>	Varushchenko, R. M., Druzhinina, A. I., Kuramshina, G. M., Dorofeeva, O. V. (2007). Thermodynamics of vaporization-of some freons and halogenated ethanes and propanes. Fluid Phase Equilibria 256(1-2):112-122.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	5434414

**EXTRACTION**

Parameter	Data
Boiling Point	356.64 K
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Prepared by Samara State Technical University and A.N. Nesmeyanov Institute of Organoelement Compounds; NR; 99.9%
Standard Deviation Results	0.01
Results Details	measured using a differential ebulliometer

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	7681894

**EXTRACTION**

Parameter	Data
Density	1.23 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Density Type	density
System	not specified
Temperature	20°C
Standard Deviation Results	not specified
Results Details	not specified

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Source cited: WHO, 2003

<b>Study Citation:</b>	DOE, (2016). Table 1: Chemicals of concern and associated chemical information. PACs.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3981013

**EXTRACTION**

Parameter	Data
Density	1.2454 -
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Density Type	specific gravity (density of a substance divided by the density of water)
System	not specified
Temperature	25°C
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review; specific source not reported.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: primary reference not specified but include CRC (2009), HSDB (no date), Merck (2006), SAX (2012)

<b>Study Citation:</b>	Dow Chemical, (2004). [Redacted] Density versus temperature for chlorinated solvents.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	10610555

EXTRACTION	
Parameter	Data
Density	1.23669 - 1.25090 g/cm <sup>3</sup>
CASRN and Test Material	1,2-DCE; 1,2-dichloroethane
Confidentiality, Type, and Guideline	redacted; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; 99.9% or greater
Density Type	density
System	Electronic Densitometer; Check Density Method
Temperature	20-30°C
Standard Deviation Results	not reported
Results Details	1.25090 g/cm <sup>3</sup> @ 20°C; 1.24364 g/cm <sup>3</sup> @ 25°C; 1.23669 @ 30°C

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.	
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.	
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**High**

\* Related References: 1,2-DCE

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Density  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Density	1.253 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Density Type	Density
System	Not reported
Temperature	20°C
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Iloukhani, H., Parsa, J. B., Hatami, M. (2008). Physico-chemical properties of binary mixtures of 1-butanol with chloroethanes or chloroethenes at 298.15 K. Physics and Chemistry of Liquids 46(5):495-503.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4700247

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Density	1.24564 -
CASRN and Test Material	Not Reported; 1,2-Dichloromethane
Confidentiality, Type, and Guideline	none; experimental; None
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Merck; Not Reported; 99.5%
Density Type	Not Reported
System	measured with an Anton Paar DMA 4500 oscillating U-tube densimeter
Temperature	298.15K
Standard Deviation Results	±0.01 kg/m <sup>3</sup>
Results Details	Not Reported

<b>EVALUATION</b>			
<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

**Study Citation:** Marshall, K. A., Pottenger, L. H. (2016). Chlorocarbons and chlorohydrocarbons. :1-29.  
**OECD Harmonized Template:** Density  
**HERO ID:** 3828879

**EXTRACTION**

Parameter	Data
Density	1256 - kg/m3
CASRN and Test Material	107-06-02; Not Reported
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Density Type	density
System	Not Reported
Temperature	25C
Standard Deviation Results	Not Reported
Results Details	Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to information from this secondary source.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to information from this secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved.DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Density  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Density	1.24 - Not reported
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Density Type	Specific gravity
System	Not reported
Temperature	Not Reported
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information

**Overall Quality Determination****Medium**

<b>Study Citation:</b>	Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3827414

EXTRACTION	
Parameter	Data
Density	= 1.2529 - g/L
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Density Type	density
System	Not Reported
Temperature	20C
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.	
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**High**

<b>Study Citation:</b>	U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	7325487

EXTRACTION	
Parameter	Data
Density	1.2529 - g/L
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Density Type	density
System	NR
Temperature	20 C
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other				
	Metric 5:	Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

<b>Study Citation:</b>	Ali, A., Tariq, M. (2008). Deviations in refractive index parameters and applicability of mixing rules in binary mixtures of benzene+1,2-dichloroethane at different temperatures. Chemical Engineering Communications 195(1):43-56.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4700992

**EXTRACTION**

Parameter	Data
Density	1.2399 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; stored over 0.4nm molecular sieves for several days to reduce the water content; NR
Radiolabel, Source, State, and Purity	NR; Qualigens; NR; >99% Notes: used after purification according to the standard procedures (Vogel, 1978; Riddick et al., 1986)
Temperature	303.15 K
Standard Deviation Results	0.1 kg/m <sup>3</sup> (0.0001 g/cm <sup>3</sup> )
Results Details	Reported as 1239.9 kg/m <sup>3</sup> ; measured with a single capillary pycnometer

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2009). Studies on transport and thermodynamic properties of binary mixtures of hexan-1-ol with halogenated compounds at 293.15 K. Journal of Chemical and Engineering Data 54(12):3303-3306.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3572985

**EXTRACTION**

Parameter	Data
Density	1.252766 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; In dark bottles over 0.4 nm molecular sieves; NR
Radiolabel, Source, State, and Purity	NR; S.D. Fine Chem Ltd.; Liquid; 99.7% Notes: Partially degassed with a vacuum pump under nitrogen atmosphere
Temperature	293.15 K
Standard Deviation Results	± 2E-6 g/cm <sup>3</sup>
Results Details	Value measured at 293.15 K with a digital densimeter.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2009). Studies on transport and thermodynamic properties of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. Journal of Molecular Liquids 144(3):163-171.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698002

**EXTRACTION**

Parameter	Data
Density	1.245290 g/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; s.d. fine chemicals Ltd.; Liquid; 99.5%
Temperature	298.15 K
Standard Deviation Results	Not reported
Results Details	measured with Anton Paar densimeter (model DSA 5000) operated in the static mode and automatically thermostated within $\pm 0.001$ K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Common method used.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2010). Ultrasonic velocities, isentropic compressibilities and excess molar volumes of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. <i>Physics and Chemistry of Liquids</i> 48(2):199-230.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698011

**EXTRACTION**

Parameter	Data
Density	1.24529 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; s.d. fine chemicals Ltd.; Liquid; 99.5%
Temperature	298.15K
Standard Deviation Results	Not reported
Results Details	Measured with Anton Paar digital densimeter(model DSA 5000) operated in the static mode and automatically thermostated within $\pm 0.001$ K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance, purity (99.5%).
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Possibly equivalent to OECD 109. Measured with Anton Paar digital densimeter (model DSA 5000) operated in the static mode and automatically thermostated within $\pm 0.001$ K.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. R. (2009). Refractive properties and internal pressures of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. Journal of Molecular Liquids 145(2):88-102.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698000

**EXTRACTION**

Parameter	Data
Density	1.24529 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; dark bottles over 0.4 nm molecular sieves to reduce water content and partially degassed with a vacuum pump under nitrogen atmosphere;
Radiolabel, Source, State, and Purity	NR
Temperature	NR; s.d. fine chemicals Ltd.; Liquid; 99.5%
Standard Deviation Results	298.15 K
Results Details	Not reported value is at 298.15 K; this source also measured 1.230566 g/cm <sup>3</sup> at 308.15 K; measured on an Anton Paar digital densitometer (model DSA 5000) operated in the static mode

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance, purity (99.5%).
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Experimental values match referenced values provided.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Comelli, F., Francesconi, R. (1995). Densities and excess molar volumes of binary-mixtures containing propylene carbonate plus 10 chlorohydrocarbons at 298.15 k and atmospheric-pressure. Journal of Chemical and Engineering Data 40(6):1184-1187.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3572470

**EXTRACTION**

Parameter	Data
Density	1.24562 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; trans-1,2-Dichloroethene
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; stored in dark bottles over molecular sieves; NR
Radiolabel, Source, State, and Purity	NR; Aldrich; Liquid; 99 mol%
Temperature	298.15 K
Standard Deviation Results	Estimated uncertainty 1E-5 g/cm <sup>3</sup>
Results Details	Anton Paar DMA 60/602 (Graz, Austria) digital vibrating tube density meter.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Density	1.23502 - 1.2569 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20-25°C
Standard Deviation Results	Not Reported
Results Details	@20-25°C; 170 values were reported in Reaxys; 58 values were reported in the range of 1.23502 to 1.2569 at 19.84-25°C; 111 values were outside this range or measured at unreported or non-standard temperatures.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

<b>Study Citation:</b>	Gheorghe, D., Dragoescu, D., Teodorescu, M. (2013). Volumetric study for the binary nitromethane with chloroalkane mixtures at temperatures in the range (298.15 to 318.15) K. Journal of Chemical and Engineering Data 58(5):1161-1167.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698744

**EXTRACTION**

Parameter	Data
Density	1.24559 g/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NA
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Aldrich; NR; Mass fraction purity $\geq 0.998$ Notes: no purification methods applied
Temperature	298.15 K
Standard Deviation Results	experimental measurement uncertainty for density was $> 0.4$ kg/cu m
Results Details	Reported as 1.24559 kg/cu m

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Gutsche, B., Knapp, H. (1982). Isothermal measurements of vapor-liquid equilibria for three n-alkane-chloroalkane mixtures. Fluid Phase Equilibria 8(3):285-300.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5446160

**EXTRACTION**

Parameter	Data
Density	1.2531 Not reported
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; analytical grade
Temperature	Not Reported
Standard Deviation Results	Not Reported
Results Details	units not reported; at 20 °C relative to water at 4 °C

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or out outcome.
	Metric 4: Reliability/Analytical Method	Low	Units not reported but expected to be g/cm <sup>3</sup> .
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5175150

EXTRACTION	
Parameter	Data
Density	1.2454 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Haynes, W.M. (Ed.). CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 3-162.

<b>Study Citation:</b>	Iloukhani, H., Parsa, J. B., Hatami, M. (2008). Physico-chemical properties of binary mixtures of 1-butanol with chloroethanes or chloroethenes at 298.15 K. <i>Physics and Chemistry of Liquids</i> 46(5):495-503.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4700247

**EXTRACTION**

Parameter	Data
Density	1.24564 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; 99.5% Notes: used after purification according to standard procedures
Temperature	298.15 K
Standard Deviation Results	0.01 kg/m <sup>3</sup> (1E-5 g/cm <sup>3</sup> )
Results Details	Measured with an Anton Paar DMA 4500 oscillating U-tube densimeter

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Iloukhani, H., Samiey, B. (2005). Studies of viscosities and excess molar volumes of the binary mixtures of 1-heptanol plus 1,2-dichloroethane, plus 1,1,1-trichloroethane, plus 1,1,2,2-tetrachloroethane, plus trichloroethylene and tetrachloroethylene at (293.15, 298.15, and 303.15) K for the liquid region and at ambient pressure. Journal of Chemical and Engineering Data 50(6):1911-1916.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3572605

**EXTRACTION**

Parameter	Data
Density	1.24564 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; Liquid; >99%
Temperature	298.15 K
Standard Deviation Results	Not Reported
Results Details	Value reported as 1245.64 kg/m <sup>3</sup> at 298.15 K. Measurements taken for pure liquids at 293.15, 298.15, and 303.15 K however only 298.15 K value reported. Density was measured on a digital densimeter in static mode, with precision of $\pm 10^{-2}$ kg/m <sup>3</sup> , and temperature within $\pm 0.01$ K.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Joshi, S. S., Aminabhavi, T. M., Shukla, S. S. (1991). Densities and viscosities of binary-mixtures of bromoform with anisole, acetophenone, ethyl benzoate, 1,2-dichloroethane and 1,1,2,2-tetrachloro-ethane from 298.15 to 313.15k. Indian Journal of Technology 29(7):319-326.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3571059

**EXTRACTION**

Parameter	Data
Density	1.2455 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; BDH (England); Liquid; >99 mol% Notes: purified by fractional distillation and drying
Temperature	Not Reported
Standard Deviation Results	Estimated error $\pm 1E-4$ g/cm <sup>3</sup>
Results Details	298.15 K; Measured using double arm pycnometer

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Krishnaiah, A., Surendranath, K. N. (1996). Densities, speeds of sound, and viscosities of mixtures of oxolane with chloroethanes and chloroethenes. Journal of Chemical and Engineering Data 41(5):1012-1014.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	3570912

**EXTRACTION**

Parameter	Data
Density	1.23828 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; purity of the samples was checked by comparing the measured densities, viscosities at 303.15 K, and boiling points with those in Riddick, J. A. et al. Organic Solvents-Physical Properties and Methods of Purification; Wiley: New York, 1986.
Temperature	Not Reported
Standard Deviation Results	Not reported
Results Details	value reported as 1238.28 kg/m <sup>3</sup> . Measured using a bicapillary pycnometer

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Manfredini, M., Marchetti, A., Sighinolfi, S., Tassi, L., Ulrici, A., Vignali, M. (2002). Densities and excess molar volumes of binary mixtures containing 1,2-dichloroethane+2-methoxyethanol or 1,2-dimethoxyethane at different temperatures. Journal of Molecular Liquids 100(2):163-181.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4149239

**EXTRACTION**

Parameter	Data
Density	1.25234 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; preserved over 3A molecular sieves for many days before use; NR
Radiolabel, Source, State, and Purity	NR; Carlo Erba (Milan); NR; high purity reagent grade Notes: contained <0.10% water; further purified by simple distillation over anhydrous NaKCO <sub>3</sub> ; middle portion (bp 83.5°C) kept for measurements
Temperature	20°C
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Manfredini, M., Marchetti, A., Sighinolfi, S., Tassi, L., Ulrici, A., Vignali, M. (2002). Densities and excess molar volumes of binary mixtures containing 1,2-dichloroethane+2-methoxyethanol or 1,2-dimethoxyethane at different temperatures. Journal of Molecular Liquids 100(2):163-181.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4149239

**EXTRACTION**

Parameter	Data
Density	1.24551 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; preserved over 3A molecular sieves for many days before use; NR
Radiolabel, Source, State, and Purity	NR; Carlo Erba (Milan); NR; high purity reagent grade Notes: contained <0.10% water; further purified by simple distillation over anhydrous NaKCO <sub>3</sub> ; middle portion (bp 83.5°C) kept for measurements
Temperature	25°C
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Mussari, L., Postigo, M., Lafuente, C., Royo, F. M., Urieta, J. S. (2000). Viscosity measurements for the binary mixtures of 1,2-dichloroethane or 1,2-dibromoethane with isomeric butanols. Journal of Chemical and Engineering Data 45(1):86-91.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	2113544

**EXTRACTION**

Parameter	Data
Density	1245.63 g/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; Not Reported; NR
Radiolabel, Source, State, and Purity	NR; Lab-Scan; Liquid; >99.8% Notes: used without further purification
Temperature	Not Reported
Standard Deviation Results	± 1e-2 kg/cu m
Results Details	1245.63 kg/cu m

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Riddick et al. 1986. Organic Solvents: Physical Properties and Methods of Purification. 4th ed. NY, Wiley

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Density  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
Density	1.2569 g/cm3
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20°C
Standard Deviation Results	Not Reported
Results Details	at 20°C relative to water at 4°C

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Oswal, S. L., Patel, I. N., Modi, P. S., Barad, S. A. (2000). Viscosities and excess molar volumes of binary mixtures of alkyl acetates with di-, tri-, and tetrachloroethane. International Journal of Thermophysics 21(3):681-694.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4723945

**EXTRACTION**

Parameter	Data
Density	1.238 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; Liquid; 99.8 mol% Notes: Purity of liquid samples checked by gas-liquid chromatography and by measuring physical properties
Temperature	303.15 K
Standard Deviation Results	± 2e-2 kg/m <sup>3</sup>
Results Details	Reported as 1238.37 kg/cu m; measured with an Anton Paar vibrating- tube densimeter (Model DMA 60/602)

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Pawar, V. P. (2006). Dielectric relaxation of propan-1-ol with chlorobenzene, 1,2-dichloroethane, and dimethylene chloride at (288, 298, 308, and 318) K using time-domain reflectometry technique. Journal of Chemical and Engineering Data 51(3):882-885.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698126

**EXTRACTION**

Parameter	Data
Density	1.325 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Qualigens Fine Chemicals Pvt Ltd Bombay India; NR; 99.0% based on GC analysis Notes: used without further purification
Temperature	298 K
Standard Deviation Results	Not reported
Results Details	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

<b>Study Citation:</b>	Prakash, D. J., Lakshmi, D. S., Rao, M. V., Prasad, L., D.H. (1996). Density and viscosity of methanol plus 1,2-dichloroethane, methanol plus 1,1,1-trichloroethane, and methanol plus 1,1,2,2-tetrachloroethane mixtures. <i>Physics and Chemistry of Liquids</i> 33(4):249-254.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	1189101

**EXTRACTION**

Parameter	Data
Density	1.2528 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; est. 99.9% Notes: Purity expected to be 99.9% based on comparison of measured density and refractive index values to literature values and gas chromatographic study.
Temperature	293.15 K
Standard Deviation Results	Not Reported
Results Details	Measured at 293.15 K, pycnometer calibrated with double distilled water

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Density  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Density	1.256 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: SynQuest

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Density  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Density	1.256 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Alfa Aesar

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Density  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Density	1.256 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Oakwood

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Density  
**HERO ID:** 5926257

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Density	1.256 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Fluorochem

<b>Study Citation:</b>	Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5926370

**EXTRACTION**

Parameter	Data
Density	1.2454 g/cm3
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Sathyanarayana, B., Jyostna, T. S., Satyanarayana, N. (2006). Acoustic studies of binary mixtures of N-methylacetamide with some chloroethanes and chloroethenes at 308.15 K. Indian Journal of Pure and Applied Physics 44(8):587-591.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698397

**EXTRACTION**

Parameter	Data
Density	1.24636 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck GR grade; NR; 99% Notes: purity of the chemicals was checked by comparing densities and velocities of the pure liquids with literature
Temperature	298.15 K
Standard Deviation Results	0.0001
Results Details	Pycnometer was calibrated to the density of water at 298.15K as 0.9970 g/cm <sup>3</sup>

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Sathanarayana, B., Ranjithkumar, B., Jyostna, T. S., Satyanarayana, N. (2007). Densities and viscosities of binary liquid mixtures of N-methylacetamide with some chloroethanes and chloroethenes at T=308.15 K. Journal of Chemical Thermodynamics 39(1):16-21.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	4698408

**EXTRACTION**

Parameter	Data
Density	1.2464 g/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NA
Solvent, Reactivity, Storage, and Stability	NR; NR; amber colored bottles (middle fraction 2nd distillation); NR
Radiolabel, Source, State, and Purity	NR; Merck, India, GR; NR; 99% Notes: washed w/dil soln KOH followed by hot H2O and dried over P2O5 and distilled twice
Temperature	298.15 K
Standard Deviation Results	uncertainty $\pm$ 0.1 kg/cu m
Results Details	Reported as 1.2464 kg/cu m

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Sivaramprasad, G., Rao, M. V., Prasad, L., D.H. (1990). Density and viscosity of ethanol + 1,2-dichloroethane, ethanol + 1,1,1-trichloroethane, and ethanol + 1,1,1,2-tetrachloroethane binary-mixtures. Journal of Chemical and Engineering Data 35(2):122-124.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5440824

**EXTRACTION**

Parameter	Data
Density	1.2530 g/cm <sup>3</sup>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; in an amber-colored bottle; NR
Radiolabel, Source, State, and Purity	NR; BDH Chemicals, Poole, England; Liquid; Washed w/dilute solution of potassium hydroxide and then with water; dried over phosphorus pentoxide and distilled twice; middle fraction of the second distillation collected for use in the experimentation.
Temperature	293.18 K
Standard Deviation Results	Not Reported
Results Details	at 293.18 K; pycnometer calibrated by using double-distilled water

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	Peer-reviewed journal article with results compared to other literature values.
	Metric 4: Reliability/Analytical Method	High	Common method used.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	NCBI, (2020). PubChem database: compound summary: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	6629243

EXTRACTION	
Parameter	Data
Density	3.42
CASRN and Test Material	107-06-2; 1,2-DCA
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Temperature	Not Reported
Standard Deviation Results	Not reported
Results Details	Relative vapor density (air = 1)

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination** **High**

\* Related References: ILO International Chemical Safety Cards (ICSC)

<b>Study Citation:</b>	NCBI, (2020). PubChem database: compound summary: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	6629243

**EXTRACTION**

Parameter	Data
Density	3.4
CASRN and Test Material	107-06-2; 1,2-DCA
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Temperature	Not Reported
Standard Deviation Results	Not reported
Results Details	Relative to air

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: National Toxicology Program, Institute of Environmental Health Sciences, National Institutes of Health (NTP). 1992. National Toxicology Program Chemical Repository Database. Research Triangle Park, North Carolina.

<b>Study Citation:</b>	NCBI, (2020). PubChem database: compound summary: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	6629243

**EXTRACTION**

Parameter	Data
Density	3.4
CASRN and Test Material	107-06-2; 1,2-DCA
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Temperature	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Occupational Safety and Health Administration (OSHA)

<b>Study Citation:</b>	CalEPA, (2008). TSD for noncancer RELs - Appendix D.3 Chronic RELs and toxicity summaries using the previous version of the Hot Spots Risk Assessment guidelines (OEHHA 1999).
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	628645

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Vapor Pressure	64 torr
CASRN and Test Material	107-06-2; ethylene dichloride
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	None; NR; NR; NR
Temperature	20°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
Domain		Metric	Rating	Comments
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Gray lit referencing HSDB 2000; value reported in HEROID: 5926257; HEROID: 5926111 for HSDB (2018) reports 78.9 mm Hg @ 25°C

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	7681894

**EXTRACTION**

Parameter	Data
Vapor Pressure	8.53 kPa
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20°C
System	not specified
Standard Deviation Results	not specified
Results Details	not specified

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Source cited: WHO, 2003

<b>Study Citation:</b>	Canada., G.o. (2021). Fact sheet: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	7310487

EXTRACTION	
Parameter	Data
Vapor Pressure	80 - mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) and/or other physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other				
	Metric 5:	Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary unspecified sources: ATSDR, 2001, Toxicological Profile for 1,2-dichloroethane (HERO ID could not be located); Canadian Council of Ministers of the Environment, 1999, Canadian Water Quality Guidelines for the Protection of Aquatic Life: Chlorinated Ethanes (HERO ID could not be located); Montgomery, 2007, Groundwater Chemicals, Desk Reference (HERO ID could not be located).

<b>Study Citation:</b>	DOE, (2016). Table 1: Chemicals of concern and associated chemical information. PACs.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	3981013

**EXTRACTION**

Parameter	Data
Vapor Pressure	75 - mm Hg
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	23.7°C
System	not reported
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review; specific source not reported.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: primary reference not specified but include CRC (2009), HSDB (no date), Merck (2006), SAX (2012)

<b>Study Citation:</b>	Dow Chemical, (1987). [Redacted] Isobaric vapor-liquid equilibrium and vapor pressure studies for purification of 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	10610556

**EXTRACTION**

Parameter	Data
Vapor Pressure	80.907 mm Hg
CASRN and Test Material	Not Reported; 1,2-dichloroethane
Confidentiality, Type, and Guideline	redacted; experimental; twin ebulliometer
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; S Stringfield, Functional Resin, 1604 Building; NR; >98%
Temperature	25.676°C
System	ebulliometric technique
Standard Deviation Results	0.719 mm Hg; 0.082°C
Results Details	all results: 60.995 mm Hg @ 19.875°C; 80.907 mm Hg @ 25.676°C; 100.793 mm Hg @ 30.048°C; 200.132 mm Hg @ 46.079°C; 299.527 mm Hg @ 56.392°C; 399.222 mm Hg @ 64.251°C; 499.348 mm Hg @ 70.622°C; 598.624 mm Hg @ 76.100°C; 698.610 mm Hg @ 80.831°C; 758.251 mm Hg @ 83.411°C

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Vapor Pressure	8.53 kPa
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Temperature	20°C
System	Not reported
Standard Deviation Results	Not Reported
Results Details	3.33 kPa at 0°C; 13.30 kPa at 30°C; 32.00 kPa at 50°C; 66.65 kPa at 70°C; 93.31 kPa at 80°C.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5160047

**EXTRACTION**

Parameter	Data
Vapor Pressure	= 8.5 kPa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20°C
System	not reported
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Multiple sources cited for several endpoints: Archer, 1979; Konemann, 1981 (HERO ID 3684127); Warner et al, 1987; Chiou et al, 1979

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Vapor Pressure	76.86 - 78.921 mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	21 data points were reported; 4 values were reported at 76.86 to 78.921 torr at standard temperature; 17 data points were outside the range, measured at non-standard or unreported temperatures.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

<b>Study Citation:</b>	Garcia-Sanchez, F., Trejo, A. (1985). Vapour pressure and critical constants of 1,2-dichloroethane. Journal of Chemical Thermodynamics 17(10):981-983.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5440005

**EXTRACTION**

Parameter	Data
Vapor Pressure	78.0 - 5302.8 kPa
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; experimental; non-guideline measurement using a Heise precision test gauge
Solvent, Reactivity, Storage, and Stability	NA; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; 99.7 moles percent Notes: further purified to remove moisture
Temperature	351.8 to 560.3K
System	Not Reported
Standard Deviation Results	Pressure gauge calibrated to +10 kPa
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Gutsche, B., Knapp, H. (1982). Isothermal measurements of vapor-liquid equilibria for three n-alkane-chloroalkane mixtures. Fluid Phase Equilibria 8(3):285-300.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5446160

**EXTRACTION**

Parameter	Data
Vapor Pressure	12530 Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; analytical grade
Temperature	28.75°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	reported as 12.53 kPa @ 301.9 K

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features and other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5175150

**EXTRACTION**

Parameter	Data
Vapor Pressure	78.9 mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Daubert, T.E., R.P. Danner. Physical and Thermodynamic Properties of Pure Chemicals Data Compilation. Washington, D.C.: Taylor and Francis, 1989.

<b>Study Citation:</b>	Nath, J. (1991). Thermodynamic behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, dichloromethane, trichloroethene, tetrachloroethene and cyclohexane. Vapour pressures and excess molar Gibbs energies. Journal of the Chemical Society. Faraday Transactions 87(9):1345-1350.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	3544468

**EXTRACTION**

Parameter	Data
Vapor Pressure	79.50 torr
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: purification method referenced to J. Nath and Rashmi, Fluid Phase Equilibria, 1990, 58, 319 and J. Nath and Rashmi, J. Chem. SOC., Faraday Trans., 1990, 86, 3399
Temperature	298.15 K
System	measured by a static method
Standard Deviation Results	Not reported
Results Details	values corrected to 0°C

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	Peer-reviewed journal article with results compared to other literature values.
	Metric 4: Reliability/Analytical Method	High	Standard method used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	NCBI, (2020). PubChem Annotation Record for 1,2-Dichloroethane.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	9641339

EXTRACTION	
Parameter	Data
Vapor Pressure	Not Reported
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Heat of vaporization = 3.2E5 J/kg

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.	
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary source: NOAA; CAMEO Chemicals. Database of Hazardous Materials. 1,2-Dichloroethane (107-06-2). Natl Ocean Atmos Admin, Off Resp Rest; NOAAOcean Serv. Available from, as of April 13, 2018: <http://cameochemicals.noaa.gov/> (HEROID 5349340)

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Vapor Pressure	64 - mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** NIOSH, (1988). Occupational safety and health guideline for ethylene dichloride.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 7325697

**EXTRACTION**

Parameter	Data
Vapor Pressure	68 - mm Hg
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 C
System	NR
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: No citation included.

<b>Study Citation:</b>	Pearce, J. N., Peters, P. E. (1929). The vapor pressure of ethylene chloride between -30° and 100°. Journal of Physical Chemistry 33(6):873-878.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	9088640

**EXTRACTION**

Parameter	Data
Vapor Pressure	= 3.2 (2.6; derived from equation of experimental data plot) - = 1208.6 (1178.8; derived from equation of experimental data plot) mm Hg
CASRN and Test Material	not reported; ethylene chloride
Confidentiality, Type, and Guideline	none; experimental; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Eastman; NR; NR Notes: NR
Temperature	Observed VP recorded for temperatures between -30.82 and 99.40°C
System	Dewar flask with isoteniscope in a water bath. Vapor pressures were obtained at intervals of ca. 5°C.
Standard Deviation Results	not reported
Results Details	Vapor pressures (curve) at 10.07, 15.52, 20.21, 25.25, and 30.23°C = 36.7, 49.1, 62.1, 79.8, and 100.9 mm Hg, respectively; vapor pressure (curve) using rounded temperatures: 10, 15, 20, 25, and 30°C = 36.8, 47.9, 61.6, 78.9, and 100.1 mm Hg, respectively. Vapor pressures (equation) at 10.07, 15.52, 20.21, 25.25, and 30.23°C = 36.6, 49.2, 62.4, 79.8, and 100.7 mm Hg, respectively; vapor pressure (equation) using rounded temperatures: 10, 15, 20, 25, and 30°C = 36.8, 47.9, 61.7, 78.9, and 99.7 mm Hg, respectively. The molal heat of vaporization (boiling point 84.1°C) was obtained using the Clapeyron equation and calculated as 7745 cal. The molal entropy of vaporization was calculated as 21.68 cal.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10740 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Stull 1947 HERO ID 41570

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10462 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Resistance measurements. Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Foco et al. 1992 HERO ID 3543063

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10154 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Weast 1972- 1973

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10704 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Dreisbach 1959

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	11109 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Stephenson and Malanowski 1987

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10536 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Extrapolated; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Extrapolated by the Antoine equation.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Boublik et al. 1973 HERO ID 4140510

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	10490 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Boublik et al. 1984 HERO ID 194873

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	8520 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: McConnell et al. 1975 HERO ID 58280

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	8400 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Pearson and McConnell 1975 HERO ID 75602

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	8131 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	20 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Rex 1906

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	12983 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	30 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Rex 1906

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	8930 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	20 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Neely 1976 HERO ID 18866

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Vapor Pressure	8500 - Pa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	20 deg C
System	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Ullmann 1975

**Study Citation:** RIVM, (2017). Probit function technical support document: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 7325486

EXTRACTION	
Parameter	Data
Vapor Pressure	8700 - Pa
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Not specified; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 C
System	NR
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance. Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.	
	Metric 2: Appropriateness	High		
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.	
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**Medium**

\* Related References: No citation reported.

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Vapor Pressure	64 mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 5926257

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Vapor Pressure	87 mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

## Medium

\* Related References: SynQuest

**Study Citation:** Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 6655446

**EXTRACTION**

Parameter	Data
Vapor Pressure	= 10.6 kPa
CASRN and Test Material	Not Reported; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	25°C
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.  
**OECD Harmonized Template:** Vapor Pressure  
**HERO ID:** 3827414

**EXTRACTION**

Parameter	Data
Vapor Pressure	= 5.3 - = 13.3 kPa
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	VP = 5.3, 8.5, and 13.3 kPa at 10,20, and 30C, respectively.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Vapor Pressure	78.9 mm Hg
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp. Daubert, TE and Danner, RP. 1985

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	7681894

EXTRACTION	
Parameter	Data
log $k_{ow}$	= 1.48
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	not specified
System	not specified
pH	not specified
Results Details Method	not specified
Standard Deviation Results	not specified
Results Details	not specified

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Source cited: OEHHA, 1999

<b>Study Citation:</b>	EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5160047

EXTRACTION	
Parameter	Data
log $k_{ow}$	= 1.76 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	not reported
System	not reported
pH	not reported
Results Details Method	not reported
Standard Deviation Results	not reported
Results Details	not reported

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Multiple sources cited for several endpoints: Archer, 1979; Konemann, 1981 (HERO ID 3684127); Warner et al, 1987; Chiou et al, 1979

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5926415

EXTRACTION	
Parameter	Data
log $k_{ow}$	1.46
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	@ 24.8 C; Kow 28.9

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Dewulf; Van Langenhove; Grare; Water Research; vol. 33; nb. 10; (1999); p. 2424 - 2436

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** logKow  
**HERO ID:** 5175150

EXTRACTION	
Parameter	Data
log $k_{ow}$	1.48
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Hansch, C., Leo, A., D. Hoekman. Exploring QSAR - Hydrophobic, Electronic, and Steric Constants. Washington, DC: American Chemical Society, 1995, p. 4

<b>Study Citation:</b>	Mueller, M., Klein, W. (1992). Comparative evaluation of methods predicting water solubility for organic compounds. Chemosphere 25(6):769-782.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	654554

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.46
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Calculation; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not reported
System	Not reported
pH	Not reported
Results Details Method	Not reported
Standard Deviation Results	Not reported
Results Details	calculated Pow-values -MedChem-Software 1989

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	Medium	Calculated data consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	N/A	This matrix is not applicable to this calculated data.
Domain 3: Other	Metric 5: Databases	N/A	This matrix is not applicable to this calculated data.
	Metric 6: Models	High	The model had a defined, unambiguous endpoint and the model performance was known.

**Overall Quality Determination****High**

**Study Citation:** OECD, (2002). SIDS initial assessment report: 1,2-dichloroethane. :203.  
**OECD Harmonized Template:** logKow  
**HERO ID:** 5160031

**EXTRACTION**

Parameter	Data
log $k_{ow}$	= 1.45 -
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; experimental; not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	23C
System	Shake-flask; duplicates were made with only one concentration.
pH	not reported
Results Details Method	LSC (liquid scintillation counting)
Standard Deviation Results	not reported
Results Details	concentration in water was far below the solubility limit

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Banerjee, S. et al. (1980): Environ. Sci. Technol. 14, 1227 - 1229 HERO ID 4440635

<b>Study Citation:</b>	OECD, (2002). SIDS initial assessment report: 1,2-dichloroethane. :203.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5160031

**EXTRACTION**

Parameter	Data
log $k_{ow}$	= 1.45 -
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; experimental; not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20C
System	Shake-flask; 1 mg/mL in water or octanol were equilibrated against the other solvent.
pH	not reported
Results Details Method	not specified; samples centrifuged and analyzed
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Veith, G.D. et al. (1980): ASTM Spec. Techn. Publ. 707, 116-129. HERO ID 7439 (book chapter, may be secondary source)

**Study Citation:** OECD, (2002). SIDS initial assessment report: 1,2-dichloroethane. :203.  
**OECD Harmonized Template:** logKow  
**HERO ID:** 5160031

**EXTRACTION**

Parameter	Data
log $k_{ow}$	= 1.45 -
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; calculation; not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	not reported
System	not reported
pH	not reported
Results Details Method	not reported
Standard Deviation Results	not reported
Results Details	calculation according to Rekker

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	Medium	Model was referenced to another source.

**Overall Quality Determination****High**

\* Related References: 3 sources cited: Hermens, J. et al. (1984): *Aquat. Toxicol.* 5, 143 - 154. (HERO ID 1580279); Hermens, J. et al. (1985): *Toxicol. Environ. Chem.* 9, 219 - 236.; Koenemann, H. (1981): Quantitative structure-activity relationships in fish toxicity studies - part 1: relationship for 50 industrial pollutants; *Toxicology* 19, 209-221.

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.45 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Veith et al. 1980 HERO ID 3797828

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.47 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Both phases analyzed.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Jow and Hansch unpublished data

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.48 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Hansch and Leo 1979 HERO ID 9837

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.45 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	Shake flask
pH	NR
Results Details Method	LSC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but is low in detail.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Banerjee et al. 1980 HERO ID 4440635

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.48 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	Shake flask
pH	NR
Results Details Method	GC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but low in detail.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Leo et al. 1975

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** logKow  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.53 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Bhatia and Sandler 1995

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.45 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Mackay et al. 2000

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.76 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Abernethy et al. 1988

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.51 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Bhatia and Sandler 1995

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.48 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Radding et al. 1977 HERO ID 60690

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.55 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Infinite dilution activities.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Tse and Sandler 1994

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.54 -
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Octanol and water mutual solubility considered.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Arbuckle 1983

**Study Citation:** U.S. EPA, (2017). Original BAF and BCF Data.  
**OECD Harmonized Template:** logKow  
**HERO ID:** 3970058

Parameter	Data
<b>EXTRACTION</b>	
log $k_{ow}$	1.48
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Not specified; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Mean log kow of 1.48 also reported as a calculated value.

Domain	Metric	EVALUATION Rating	Comments
Domain 1: Substance			
	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability			
	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other			
	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Citing ATSDR (no year).

**Study Citation:** U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2.  
**OECD Harmonized Template:** logKow  
**HERO ID:** 5926142

**EXTRACTION**

Parameter	Data
log $k_{ow}$	1.48
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references peer-reviewed original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp. Hansch, C et al. 1995

<b>Study Citation:</b>	Canada, Health (2013). Guidelines for Canadian drinking water quality: Guideline technical document - 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	7681894

EXTRACTION	
Parameter	Data
Water Solubility	= 8.69E3 mg/L
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20°C
System	not reported
pH	not reported
Results Details Method	not reported
Standard Deviation Results	not reported
Results Details	not reported

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Source cited: Verschueren, 2001

<b>Study Citation:</b>	Canada., G.o. (2021). Fact sheet: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	7310487

EXTRACTION	
Parameter	Data
Water Solubility	8500 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
System	NR
pH	NR
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

		EVALUATION		
Domain	Metric	Rating		Comments
Domain 1: Substance	Metric 1: Representativeness	High		Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	High		Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) and/or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium		There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium		The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A		Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A		Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: Cites secondary unspecified sources: ATSDR, 2001, Toxicological Profile for 1,2-dichloroethane (HERO ID could not be located); Canadian Council of Ministers of the Environment, 1999, Canadian Water Quality Guidelines for the Protection of Aquatic Life: Chlorinated Ethanes (HERO ID could not be located); Montgomery, 2007, Groundwater Chemicals, Desk Reference (HERO ID could not be located).

<b>Study Citation:</b>	Chen, F.,ei, Freedman, D. L., Falta, R. W., Murdoch, L. C. (2012). Henry's law constants of chlorinated solvents at elevated temperatures. Chemosphere 86(2):156-165.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	1739466

**EXTRACTION**

Parameter	Data
Water Solubility	8073 - 10305 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Analytical agent, Mallinckrodt; NR; NR
Temperature	8-75°C
System	Sufficient amount neat liquid added to 160 mL bottle containing 150 mL DDI water - nonaqueous phase of chemical present. Incubated 1 week
pH	Not Reported
Results Details Method	The headspace concentrations by GC. Using externally prepared standards for each compound
Standard Deviation Results	5.14-0.13%SD
Results Details	8 deg C, 8073 mg/L, 5.14%SD21 deg C, 8912 mg/L, 0.40%SD35 deg C, 8975 mg/L, 0.12%SD60 deg C, 9679 mg/L, 0.27%SD75 deg C, 10305 mg/L, 0.13%SD

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dow Chemical, (1979). [Redacted] The solubility of 1,2-dichloroethane in water.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 10610557

**EXTRACTION**

Parameter	Data
Water Solubility	8564 - 9270 ppm
CASRN and Test Material	Not Reported; 1,2-dichloroethane
Confidentiality, Type, and Guideline	redacted; experimental; GC analysis of saturated solution
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: EDC
Temperature	-1-42.6°C
System	EDC solution held at constant temperature and stirred for a minimum of 6 hours
pH	not reported
Results Details Method	GC
Standard Deviation Results	Not Reported
Results Details	-1°C, 8632 ppm0°C, 8737 ppm5°C, 8627 ppm10°C, 8607 ppm15°C, 8579 ppm20°C, 8564 ppm25°C, 8630 ppm30°C, 8767 ppm34.8°C, 8912 ppm42.6°C, 9270 ppm

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Water Solubility	8600 mg/L
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Temperature	20°C
System	Not reported
pH	Not reported
Results Details Method	Not reported
Standard Deviation Results	Not reported
Results Details	Reported as 0.86 wt%

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5160047

**EXTRACTION**

Parameter	Data
Water Solubility	= 8690 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20°C
System	not reported
pH	not reported
Results Details Method	not reported
Standard Deviation Results	not reported
Results Details	not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Multiple sources cited for several endpoints: Archer, 1979; Konemann, 1981 (HERO ID 3684127); Warner et al, 1987; Chiou et al, 1979

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5926415

EXTRACTION	
Parameter	Data
Water Solubility	8634 - 9104 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
pH	Not reported
Results Details Method	Reported as 0.865 g in 100 g H <sub>2</sub> O and 0.092 mol % at 25 C
Standard Deviation Results	Not Reported
Results Details	14 data points were reported in Reaxys; 2 values were reported at 8634 to 9104 mg/L at standard temperature; 12 data points were measured at non-standard temperatures.

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Water Solubility	8600 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
pH	Not reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Horvath A et. Al., 1999. J Phys Chem Ref Data. 128: 395-623.

**Study Citation:** Mueller, M., Klein, W. (1992). Comparative evaluation of methods predicting water solubility for organic compounds. Chemosphere 25(6):769-782.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 654554

**EXTRACTION**

Parameter	Data
Water Solubility	8520 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Calculation; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not reported
System	Statistical estimation in relation to partition coefficients.
pH	Not reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Reported as 8.61E-2 mol/L

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	Medium	Calculated data consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	N/A	This matrix is not applicable to this calculated data.
Domain 3: Other	Metric 5: Databases	N/A	This matrix is not applicable to this calculated data.
	Metric 6: Models	High	The model had a defined, unambiguous endpoint and the model performance was known.

**Overall Quality Determination****High**

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Water Solubility	0.9 - g/100 ml
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	68
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Solubility in water at 68°F reported as % by weight (g/100 ml)

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
Water Solubility	8300 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not reported
Results Details Method	Original reported as soluble in about 120 parts water
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	7200 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	19.7 deg C
System	Shake flask
pH	NR
Results Details Method	GT/TC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but low in details.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Stephenson 1992 HERO ID 1207789

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8700 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Dilling 1977 HERO ID 18370

**Study Citation:** RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8100 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	29.7 deg C
System	Shake flask
pH	NR
Results Details Method	GT/TC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but low in details.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Stephenson 1992 HERO ID 1207789

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8511 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Isnard and Lambert 1989 and Isnard and Lambert 1988 HERO ID None and 3617714

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8000 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Neely 1976 HERO ID 18866

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8524 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Horvath 1982 HERO ID 194749

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8100 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Dean 1985 HERO ID 46951

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8690 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: CRC 1962

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8620 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Seidell 1940

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8720 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	15 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Gross and Saylor 1931

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8940 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	30 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Rex 1906

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8650 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Gross 1929

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	7987 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	Shake flask
pH	NR
Results Details Method	LSC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but with limited details.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Banerjee et al. 1980 HERO ID 4440635

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8000 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Pearson and McConnell 1975 HERO ID 75602

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8800 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	Shake flask
pH	NR
Results Details Method	GC
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is reported but low in detail.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: McConnell et al. 1975 HERO ID 58280

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	9000 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	30 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Gross and Saylor 1931

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8690 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Rex 1906

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Water Solubility	8696 - mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25 deg C
System	NR
pH	NR
Results Details Method	NR
Standard Deviation Results	NR
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Wright and Schaffer 1932 HERO ID 6836791

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Water Solubility	9000 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that references a peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: NIOSH

<b>Study Citation:</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5932745

**EXTRACTION**

Parameter	Data
Water Solubility	9200 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	0°C
System	Not Reported
pH	Not reported
Results Details Method	Originally reported as 9.2 g/kg H2O, converted using CRC handbook's reported water density at 0 C.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5932745

**EXTRACTION**

Parameter	Data
Water Solubility	8600 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	25°C
System	Not Reported
pH	Not reported
Results Details Method	Originally reported as 8.6 g/kg H2O, converted using CRC handbook's reported water density at 25 C.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5932745

**EXTRACTION**

Parameter	Data
Water Solubility	10600 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	50°C
System	Not Reported
pH	Not reported
Results Details Method	Originally reported as 10.6 g/kg H2O, converted using CRC handbook's reported water density at 50 C.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	5932745

**EXTRACTION**

Parameter	Data
Water Solubility	21300 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	100°C
System	Not Reported
pH	Not reported
Results Details Method	Originally reported as 22.2 g/kg H2O, converted using CRC handbook's reported water density at 100 C.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 3827414

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Water Solubility	= 0.16 - g/100g H2O
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20C
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	solubility 0.16 g/100 g H2O

<b>EVALUATION</b>			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination**

**High**

**Study Citation:** U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2.  
**OECD Harmonized Template:** Water Solubility  
**HERO ID:** 5926142

**EXTRACTION**

Parameter	Data
Water Solubility	8600 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
System	Not Reported
pH	Not reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp. Horvath et al. 1999

<b>Study Citation:</b>	Wright, D. A., Sandler, S. I., Devoll, D. (1992). Infinite dilution activity coefficients and solubilities of halogenated hydrocarbons in water at ambient temperatures. Environmental Science & Technology 26(9):1828-1831.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	658886

**EXTRACTION**

Parameter	Data
Water Solubility	9391 - 9610 mg/L
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Calculation; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Temperature	20°C
System	Static cell apparatus was designed to specifically to measure the equilibrium vapor pressure of dilute, gravimetrically prepared binary mixtures at constant temperature.
pH	Not reported
Results Details Method	Two static cells, one a reference cell containing only the pure solvent and the other containing MKS Baratron 221 AD differential pressure transducer. The result was then plugged into two mathematical equations to give the water solubility range
Standard Deviation Results	Not reported
Results Details	Result reported as 0.171-0.175 mol%. MW of 1,2-dichloroethane is 98.96 g/mol; MW of water is 18.02 g/mol; assume density of water is 1 g/mL

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) and other physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Flash Point	17 C
CASRN and Test Material	107-06-2; Not reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
System	Closed cup
Standard Deviation Results	Not reported
Results Details	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Flash Point	21 C
CASRN and Test Material	107-06-2; Not reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
System	Open cup
Standard Deviation Results	Not reported
Results Details	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Flash Point	13.0 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Annex V of Directive 67/548/EEC; closed cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; 99.8%
System	Not Reported
Standard Deviation Results	Not reported
Results Details	55.4 F

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Sigma-Aldrich; Safety Data Sheet for 1,2-Dichloroethane, anhydrous, 99.8%. Product Number: 284505, Version 4.13 (Revision Date 12/11/2017).

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Closed cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	56 F

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: National Fire Protection Association; Fire Protection Guide to Hazardous Materials. 14TH Edition, Quincy, MA 2010, p. 325-61

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Flash Point	18 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Open cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	65 F

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: O'Neil, M.J. (ed.). The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry, 2013., p. 702

**Study Citation:** NIOSH, (2007). NIOSH pocket guide to chemical hazards.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 192177

**EXTRACTION**

Parameter	Data
Flash Point	56 - F
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; closed cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
System	closed cup
Standard Deviation Results	NR
Results Details	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Closed cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity System	Not Reported; Not Reported; Not Reported; Not Reported
Standard Deviation Results	Not reported
Results Details	56°F (13°C)

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.
<b>OECD Harmonized Template:</b>	Flash Point
<b>HERO ID:</b>	5926380

**EXTRACTION**

<b>Parameter</b>	<b>Data</b>
Flash Point	18 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Open cup
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	65°F (18°C)

**EVALUATION**

<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	15 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Alfa Aesar

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	13.3 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to the original, peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: NIOSH

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	59 F
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Alfa Aesar

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: SynQuest

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Oakwood

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: LabNetwork

**Study Citation:** RSC, (2019). ChemSpider: 1,2-Dichloroethane.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 5926257

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not Reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to the original, peer-reviewed source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Sigma-Aldrich

<b>Study Citation:</b>	Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.
<b>OECD Harmonized Template:</b>	Flash Point
<b>HERO ID:</b>	6655446

**EXTRACTION**

Parameter	Data
Flash Point	13 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.  
**OECD Harmonized Template:** Flash Point  
**HERO ID:** 7325487

**EXTRACTION**

Parameter	Data
Flash Point	17 - C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity System	NR; NR; NR; NR Notes: NR closed cup
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

<b>Study Citation:</b>	U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.
<b>OECD Harmonized Template:</b>	Flash Point
<b>HERO ID:</b>	7325487

**EXTRACTION**

Parameter	Data
Flash Point	21 - C
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
System	open cup
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Autoflammability  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Auto-flammability	413 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Value	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer- reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The data is from a data collection that is prepared by experts in the field and available for public review.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Autoflammability  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Auto-flammability	413 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
System	Not reported
Standard Deviation Results	Not Reported
Results Details	775°F
Results Value	413°C

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to a recognized data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: National Fire Protection Association; Fire Protection Guide to Hazardous Materials. 14TH Edition, Quincy, MA 2010, p. 325-61

**Study Citation:** NCBI, (2020). PubChem database: compound summary: 1,2-dichloroethane.  
**OECD Harmonized Template:** Autoflammability  
**HERO ID:** 6629243

EXTRACTION	
Parameter	Data
Auto-flammability	775 F
CASRN and Test Material	107-06-2; 1,2-DCA
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Value	Not Reported

		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

\* Related References: U.S. Coast Guard. 1999. Chemical Hazard Response Information System (CHRIS) - Hazardous Chemical Data. Commandant Instruction 16465.12C. Washington, D.C.: U.S. Government Printing Office.

<b>Study Citation:</b>	NCBI, (2020). PubChem database: compound summary: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Autoflammability
<b>HERO ID:</b>	6629243

EXTRACTION	
Parameter	Data
Auto-flammability	440 C
CASRN and Test Material	107-06-2; 1,2-DCA
Confidentiality, Type, and Guideline	None; Experimental; Not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Value	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.	
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.	
Domain 3: Other	Metric 5: Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

**Medium**

\* Related References: ILO International Chemical Safety Cards (ICSC)

<b>Study Citation:</b>	Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.
<b>OECD Harmonized Template:</b>	Autoflammability
<b>HERO ID:</b>	6655446

**EXTRACTION**

<b>Parameter</b>	<b>Data</b>
Auto-flammability	413 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; not specified; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; NR; Not Reported
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Value	Not Reported

**EVALUATION**

<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer- reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.  
**OECD Harmonized Template:** Autoflammability  
**HERO ID:** 3827414

**EXTRACTION**

Parameter	Data
Auto-flammability	413 C
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not specified; autoignition temperature in air
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not Reported
Results Value	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2009). Studies on transport and thermodynamic properties of binary mixtures of hexan-1-ol with halogenated compounds at 293.15 k. Journal of Chemical and Engineering Data 54(12):3303-3306.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	3572985

**EXTRACTION**

Parameter	Data
Viscosity	0.827
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; In dark bottles over 0.4 nm molecular sieves; NR
Radiolabel, Source, State, and Purity	NR; S.D. Fine Chem Ltd.; Liquid; 99.7% Notes: Partially degassed with a vacuum pump under nitrogen atmosphere
Temperature	293.15 K
Test Conditions	Viscosity was measured with a modified Ubbelohde suspended-level viscometer at atmospheric pressure. Temperature was maintained to $\pm 0.01$ K.
Standard Deviation Results	$\pm 2E-3$ mPa.s
Results Details	Value reported as 0.827 mPa s. Value is an average of four replicates.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. P. (2009). Studies on transport and thermodynamic properties of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. Journal of Molecular Liquids 144(3):163-171.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	4698002

EXTRACTION	
Parameter	Data
Viscosity	0.779
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; s.d. fine chemicals Ltd.; Liquid; 99.5%
Temperature	298.15K
Test Conditions	Kinematic viscosities ( $\nu$ ) at 298.15 and 308.15K were measured with a modified Ubbelohde suspended-level viscometer and entered into a mathematical formula to calculate the dynamic viscosity.
Standard Deviation Results	0.002
Results Details	Value reported as 0.779 mPa s

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data was measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	Peer-reviewed journal article referencing other literature values.
	Metric 4: Reliability/Analytical Method	High	Common method used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Viscosity  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Viscosity	0.84 x 10 <sup>-3</sup>
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Temperature	20°C
Test Conditions	Not reported
Standard Deviation Results	Not reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Viscosity	0.75 - 0.871
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20-25°C
Test Conditions	Not Reported
Standard Deviation Results	Not Reported
Results Details	At 20-25°C; 45 values were reported in Reaxys; 20 values were reported in the range of 0.75 to 0.871 at 20-25°C; 25 values were outside this range or measured at non-standard temperatures.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Viscosity  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Viscosity	0.84
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20°C
Test Conditions	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Snedecor G, et al. 2004. Chloroethylenes. Kirk-Othmer Encyclopedia of Chemical Technology.

<b>Study Citation:</b>	Iloukhani, H., Samiey, B. (2005). Studies of viscosities and excess molar volumes of the binary mixtures of 1-heptanol plus 1,2-dichloroethane, plus 1,1,1-trichloroethane, plus 1,1,2,2-tetrachloroethane, plus trichloroethylene and tetrachloroethylene at (293.15, 298.15, and 303.15) K for the liquid region and at ambient pressure. Journal of Chemical and Engineering Data 50(6):1911-1916.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	3572605

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Viscosity	0.776
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; Liquid; >99%
Temperature	298.15 K
Test Conditions	Dynamic viscosity was measured with an Ubbelohde viscometer and calculated using the equation $n = d(kt - c/t)$ where d is the density, t is the efflux time, and k and c are viscometer constants.
Standard Deviation Results	2E-3 mPa s
Results Details	Value reported as 0.776 mPa s at 298.15 K. Viscosity measurements were taken at 293.15, 298.15, and 303.15 K but only reported at 298.15 K for pure liquids.

		<b>EVALUATION</b>		
Domain	Metric	Rating	Comments	
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability				
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other				
	Metric 5:	Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## Overall Quality Determination

**Medium**

<b>Study Citation:</b>	Joshi, S. S., Aminabhavi, T. M., Shukla, S. S. (1991). Densities and viscosities of binary-mixtures of bromoform with anisole, acetophenone, ethyl benzoate, 1,2-dichloroethane and 1,1,2,2-tetrachloro-ethane from 298.15 to 313.15k. Indian Journal of Technology 29(7):319-326.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	3571059

**EXTRACTION**

Parameter	Data
Viscosity	0.7833
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; BDH (England); Liquid; >99 mol% Notes: purified by fractional distillation and drying
Temperature	298.15 K
Test Conditions	Cannon-Fenske viscometers. ASTM D 445
Standard Deviation Results	Estimated $\pm 0.2\%$ error
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Krishnaiah, A., Surendranath, K. N. (1996). Densities, speeds of sound, and viscosities of mixtures of oxolane with chloroethanes and chloroethenes. Journal of Chemical and Engineering Data 41(5):1012-1014.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	3570912

**EXTRACTION**

Parameter	Data
Viscosity	0.7295
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; purity of the samples was checked by comparing the measured densities, viscosities at 303.15 K, and boiling points with those in Riddick, J. A. et al. Organic Solvents-Physical Properties and Methods of Purification; Wiley: New York, 1986.
Temperature	303.15 K
Test Conditions	Measured using a suspended-level Ubbelohde viscometer
Standard Deviation Results	Not Reported
Results Details	Capillary-end kinetic energy corrections were applied and found to be negligible. Estimated error in viscosity is $\pm 0.0005$ mPa.s.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Mussari, L., Postigo, M., Lafuente, C., Royo, F. M., Urieta, J. S. (2000). Viscosity measurements for the binary mixtures of 1,2-dichloroethane or 1,2-dibromoethane with isomeric butanols. Journal of Chemical and Engineering Data 45(1):86-91.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	2113544

**EXTRACTION**

Parameter	Data
Viscosity	0.7644
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; Not Reported; NR
Radiolabel, Source, State, and Purity	NR; Lab-Scan; Liquid; >99.8% Notes: used without further purification
Temperature	298.15 K
Test Conditions	Ubbelohde viscosimeter and a Schott-Gerate automatic measuring unit model AVS-440; calibrated with doubly-distilled water; 4 time-flow measurements
Standard Deviation Results	±0.01 s; ±1e-4 sq mm/sec
Results Details	0.7644 mPa.s

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	This metric is not applicable as the data is from a journal article.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Riddick, J.A., et al., 1986. Organic Solvents: Physical Properties and Methods of Purification. NY: Wiley

<b>Study Citation:</b>	Oswal, S. L., Patel, I. N., Modi, P. S., Barad, S. A. (2000). Viscosities and excess molar volumes of binary mixtures of alkyl acetates with di-, tri-, and tetrachloroethane. International Journal of Thermophysics 21(3):681-694.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	4723945

**EXTRACTION**

Parameter	Data
Viscosity	0.7239
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; Liquid; 99.8 mol% Notes: Purity of liquid samples checked by gas-liquid chromatography and by measuring physical properties
Temperature	303.15 K
Test Conditions	Modified suspended-level Ubbelohde viscometer
Standard Deviation Results	2e-3 Mpa.s
Results Details	0.7239 Mpa.s

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Prakash, D. J., Lakshmi, D. S., Rao, M. V., Prasad, L., D.H. (1996). Density and viscosity of methanol plus 1,2-dichloroethane, methanol plus 1,1,1-trichloroethane, and methanol plus 1,1,2,2-tetrachloroethane mixtures. <i>Physics and Chemistry of Liquids</i> 33(4):249-254.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	1189101

**EXTRACTION**

Parameter	Data
Viscosity	0.8389
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; est. 99.9% Notes: Purity expected to be 99.9% based on comparison of measured density and refractive index values to literature values and gas chromatographic study.
Temperature	293.15 K
Test Conditions	Measured with HAAKE falling ball viscometer, temperature maintained within $\pm 0.05$ K, time measurements accurate to $\pm 0.05$ sec.
Standard Deviation Results	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Rumble, J. R. (2018). Viscosity of liquids. :6-234 - 6-237.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	5932747

**EXTRACTION**

<b>Parameter</b>	<b>Data</b>
Viscosity	0.779
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	25°C
Test Conditions	Not Reported
Standard Deviation Results	Not Reported
Results Details	1.125 cP at 0°C; 0.576 cP at 50°C; 0.447 cP at 75°C

**EVALUATION**

<b>Domain</b>	<b>Metric</b>	<b>Rating</b>	<b>Comments</b>
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Sathyanarayana, B., Ranjithkumar, B., Jyostna, T. S., Satyanarayana, N. (2007). Densities and viscosities of binary liquid mixtures of N-methylacetamide with some chloroethanes and chloroethenes at T=308.15 K. Journal of Chemical Thermodynamics 39(1):16-21.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	4698408

**EXTRACTION**

Parameter	Data
Viscosity	7.76E5
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; amber colored bottles (middle fraction 2nd distillation); NR
Radiolabel, Source, State, and Purity	NR; Merck, India, GR; NR; 99% Notes: wished w/dil soln KOH followed by hot H2O and dried over P2O5 and distilled twice
Temperature	298.15 K
Test Conditions	Ubbelohde viscometer, capacity of ~15 mL, length of ~ 90 mm, flow times repeated 5 times; 298.15 K
Standard Deviation Results	Uncertainty: 0.005e-3 kg/m.s Deviation: 0.0003e-3 kg/m.s
Results Details	Value reported as 0.776 kg/m.s; value is an average of 3 measurements.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Snedecor, G., Hickman, J. C., Mertens, J. A. (2004). Chloroethylenes.
<b>OECD Harmonized Template:</b>	Viscosity
<b>HERO ID:</b>	3827414

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Viscosity	= 0.84 -
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20C
Test Conditions	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination**

**High**

<b>Study Citation:</b>	Ali, A., Tariq, M. (2008). Deviations in refractive index parameters and applicability of mixing rules in binary mixtures of benzene+1,2-dichloroethane at different temperatures. Chemical Engineering Communications 195(1):43-56.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	4700992

**EXTRACTION**

Parameter	Data
Refractive Index	1.4389
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; stored over 0.4nm molecular sieves for several days to reduce the water content; NR
Radiolabel, Source, State, and Purity	NR; Qualigens; NR; >99% Notes: used after purification according to the standard procedures (Vogel, 1978; Riddick et al., 1986)
Temperature	298.15 K
System	measured with a thermostated Abbe refractometer
Standard Deviation Results	0.0001
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Bhatia, S. C., Bhatia, R., Dubey, G. R. (2009). Refractive properties and internal pressures of binary mixtures of octan-1-ol with chloroform, 1,2-dichloroethane and 1,1,2,2-tetrachloroethane at 298.15 and 308.15 K. Journal of Molecular Liquids 145(2):88-102.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	4698000

**EXTRACTION**

Parameter	Data
Refractive Index	1.44100
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; dark bottles over 0.4 nm molecular sieves to reduce water content and partially degassed with a vacuum pump under nitrogen atmosphere;
Radiolabel, Source, State, and Purity	NR
Temperature	NR; s.d. fine chemicals Ltd.; Liquid; 99.5%
System	298.15K
Standard Deviation Results	Refractive indices were measured with a thermostatic Abbe Refractometer (Erma, A-302A) using sodium (Na) yellow light with an error less than $\pm 0.00001$ units at 298.15 and 308.15 K.
Results Details	Not Reported
Results Details Methods	this source also measured 1.43686 at 308.15 K
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data was measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this type of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Experimental procedures and analytical methods were clearly delineated.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this type of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Dragoescu, D., Gheorghe, D., Bendova, M., Wagner, Z. (2015). Speeds of sound, isentropic compressibilities and refractive indices for some binary mixtures of nitromethane with chloroalkane at temperatures from 298.15 to 318.15 K. Comparison with theories. Fluid Phase Equilibria 385(Elsevier):105-119.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	3116913

**EXTRACTION**

Parameter	Data
Refractive Index	1.44206
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; Stored over 4 angstrom molecular sieves; NR
Radiolabel, Source, State, and Purity	NR; Aldrich; Liquid; $\geq 0.998$ mass fraction Notes: Dried and stored, used without further purification
Temperature	298.15 K
System	Refractive index was measured for pure liquid at sodium D-line, 589.3 nm, with a digital automatic refractometer. Temperature accuracy was $\pm 0.01$ K and refractive index accuracy was $\pm 0.000001$ .
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Refractive Index  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
Refractive Index	1.4449
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; None
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Temperature	20°C
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Details Methods	Not reported
Parameter	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2..
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	5926415

**EXTRACTION**

Parameter	Data
Refractive Index	1.41959 - 1.5002
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20-25°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	20-25°C; 85 values were reported in Reaxys; 54 values were reported in the range of 1.41959 to 1.5002 at 20-25°C; 31 values were outside this range or measured at unreported or non-standard temperatures.
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

<b>Study Citation:</b>	Gutsche, B., Knapp, H. (1982). Isothermal measurements of vapor-liquid equilibria for three n-alkane-chloroalkane mixtures. Fluid Phase Equilibria 8(3):285-300.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	5446160

**EXTRACTION**

Parameter	Data
Refractive Index	1.4448
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; analytical grade
Temperature	20°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or out outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the inclusion of peer-reviewed data from a secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Refractive Index  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Refractive Index	1.4422
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Haynes, W.M. (Ed.). CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 6-162

<b>Study Citation:</b>	Iloukhani, H., Parsa, J. B., Hatami, M. (2008). Physico-chemical properties of binary mixtures of 1-butanol with chloroethanes or chloroethenes at 298.15 K. <i>Physics and Chemistry of Liquids</i> 46(5):495-503.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	4700247

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
Refractive Index	1.4448
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Merck; NR; 99.5% Notes: used without further purification
Temperature	298.15 K
System	not specified
Standard Deviation Results	±0.0001 uncertainty
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

<b>EVALUATION</b>				
Domain		Metric	Rating	Comments
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination**

**Medium**

**Study Citation:** Marshall, K. A., Pottenger, L. H. (2016). Chlorocarbons and chlorohydrocarbons. :1-29.  
**OECD Harmonized Template:** Refractive Index  
**HERO ID:** 3828879

**EXTRACTION**

Parameter	Data
Refractive Index	1.4450 -
CASRN and Test Material	107-06-02; Not Reported
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to information from this secondary source.
	Metric 4: Reliability/Analytical Method	N/A	Rating of this factor is not applicable to information from this secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Kirk-Othmer Encyclopedia of Chemical Technology. Copyright # 2016 John Wiley & Sons, Inc. All rights reserved. DOI: 10.1002/0471238961.1921182218050504.a01.pub3

**Study Citation:** O'Neil, M. J. (2013). Ethylene dichloride. 107-06-2. :702.  
**OECD Harmonized Template:** Refractive Index  
**HERO ID:** 5926380

**EXTRACTION**

Parameter	Data
Refractive Index	1.4443
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	20°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Prakash, D. J., Lakshmi, D. S., Rao, M. V., Prasad, L., D.H. (1996). Density and viscosity of methanol plus 1,2-dichloroethane, methanol plus 1,1,1-trichloroethane, and methanol plus 1,1,2,2-tetrachloroethane mixtures. <i>Physics and Chemistry of Liquids</i> 33(4):249-254.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	1189101

**EXTRACTION**

Parameter	Data
Refractive Index	1.4449
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; est. 99.9% Notes: Purity expected to be 99.9% based on comparison of measured density and refractive index values to literature values and gas chromatographic study.
Temperature	293.15 K
System	Study system not reported.
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Rumble, J. R., (Ed.) (2018). 1,2-Dichloroethane. :3-18.  
**OECD Harmonized Template:** Refractive Index  
**HERO ID:** 5926370

**EXTRACTION**

Parameter	Data
Refractive Index	1.4422
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Sivaramprasad, G., Rao, M. V., Prasad, L., D.H. (1990). Density and viscosity of ethanol + 1,2-dichloroethane, ethanol + 1,1,1-trichloroethane, and ethanol + 1,1,2,2-tetrachloroethane binary-mixtures. Journal of Chemical and Engineering Data 35(2):122-124.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	5440824

**EXTRACTION**

Parameter	Data
Refractive Index	1.4450
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; in an amber-colored bottle; NR
Radiolabel, Source, State, and Purity	NR; BDH Chemicals, Poole, England; Liquid; Washed with dilute solution of potassium hydroxide and then with water; dried over phosphorus pentoxide and distilled twice; middle fraction of the second distillation collected for use in the experimentation.
Temperature	293.15 K
System	Oswald-type glass viscometer
Standard Deviation Results	Not reported
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data is reported for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this type of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	Peer-reviewed journal article with results compared to other literature values.
	Metric 4: Reliability/Analytical Method	High	Typical method used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this type of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Teodorescu, M., Secuianu, C. (2013). Refractive indices measurement and correlation for selected binary systems of various polarities at 25 a degrees C. Journal of Solution Chemistry 42(10):1912-1934.
<b>OECD Harmonized Template:</b>	Refractive Index
<b>HERO ID:</b>	4699966

**EXTRACTION**

Parameter	Data
Refractive Index	1.4421
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; dried and stored on molecular sieves 4 Angstroms; NR
Radiolabel, Source, State, and Purity	NR; E Merck AG or Aldrich; NR; 0.998
Temperature	25°C
System	measured with a thermostated Abbe refractometer from Carl Zeiss Jena (DDR) at the wavelength of the sodium D line, 589.3 nm
Standard Deviation Results	0.0001
Results Details	Not Reported
Results Details Methods	Not Reported
Parameter	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Canada., G.o. (2021). Fact sheet: 1,2-dichloroethane.  
**OECD Harmonized Template:** Henry's Law  
**HERO ID:** 7310487

**EXTRACTION**

Parameter	Data
Henry's Law	1E-3 - amt*m^3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
pH	NR
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary unspecified sources: ATSDR, 2001, Toxicological Profile for 1,2-dichloroethane (HERO ID could not be located); Canadian Council of Ministers of the Environment, 1999, Canadian Water Quality Guidelines for the Protection of Aquatic Life: Chlorinated Ethanes (HERO ID could not be located); Montgomery, 2007, Groundwater Chemicals, Desk Reference (HERO ID could not be located).

<b>Study Citation:</b>	Chen, F.,ei, Freedman, D. L., Falta, R. W., Murdoch, L. C. (2012). Henry's law constants of chlorinated solvents at elevated temperatures. Chemosphere 86(2):156-165.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	1739466

**EXTRACTION**

Parameter	Data
Henry's Law	0.00023 - 0.00899 atm-m3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Analytical agent, Mallinckrodt; NR; NR
Temperature	8-93°C
pH	Not Reported
System	Modified EPICS; water-saturated solutions, shaker table at room temperature overnight before measuring the headspace concentrations by GC
Standard Deviation Results	116-23% SD
Results Details	8.0°C, 0.00023 atm m3/mol, 116.4%SD; 24.0°C, 0.00103 atm m3/mol, 18.8%; SD38.0°C, 0.00247 atm m3/mol, 41.8% SD; 58.0°C, 0.00397 atm m3/mol, 6.85%SD; 78.0°C, 0.00658 atm m3/mol, 16.9%SD; 90.0°C, 0.00529 atm m3/mol, 15.1%SD; 93.0°C, 0.00899 atm m3/mol, 23.5%SD
Results Details Methods	Modified EPICS; water-saturated solutions, shaker table at room temperature overnight before measuring the headspace concentrations by GC

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	EC, (1994). Priority substances list assessment report: 1,2-dichloroethane.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5160047

**EXTRACTION**

Parameter	Data
Henry's Law	= 111.5 - Pa-m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	25°C
pH	Not reported
System	Not reported
Standard Deviation Results	Not reported
Results Details	Not reported
Results Details Methods	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Multiple sources cited for several endpoints: Archer, 1979; Konemann, 1981 (HERO ID 3684127); Warner et al, 1987; Chiou et al, 1979

<b>Study Citation:</b>	Hovorka, S., Dohnal, V. (1997). Determination of air-water partitioning of volatile halogenated hydrocarbons by the inert gas stripping method. Journal of Chemical and Engineering Data 42(5):924-933.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5441348

**EXTRACTION**

Parameter	Data
Henry's Law	5.24 - MPa
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Non-guideline; Inert Gas Stripping Method
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; various suppliers; NR; 99 mol % or higher Notes: Analytical or pure grade chemical
Temperature	293.15 K
pH	NR
System	Equilibrium stripping in an all-glass jacketed device with the presaturator (P) and the dilution cell (D). Constant flow of stripping gas (N2) with vigorous mixing for 2-5 hours. Equilibrium cell connected and stripping gas introduced.
Standard Deviation Results	Relative standard errors ~1%
Results Details	HLC defined as $\lim_{x1 \rightarrow 0}$ solute fugacity/solute mole fraction in the liquid solution. $K_{aw} = 39300$ , where $K_{aw} = \lim_{cwl}$ solute concentrations in air / solute concentrations in water
Results Details Methods	gas chromatograph (GC) with a flame ionization detector (FID)

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	High	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

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**Study Citation:** Hovorka, S., Dohnal, V. (1997). Determination of air-water partitioning of volatile halogenated hydrocarbons by the inert gas stripping method. Journal of Chemical and Engineering Data 42(5):924-933.  
**OECD Harmonized Template:** Henry's Law  
**HERO ID:** 5441348

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Domain	Metric	EVALUATION Rating	Comments
<b>Overall Quality Determination</b>		<b>High</b>	

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**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Henry's Law  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
Henry's Law	0.00118 atm-m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
pH	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Leighton D.T. Jr, Calo J.M. 1981. J Chem Eng 26:382-5.

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Ethane, 1,2-dichloro- (107-06-2). Standard Reference Database No. 69.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	10225171

EXTRACTION	
Parameter	Data
Henry's Law	= 0.72 - 0.92 Henry's law constant for solubility in water at 298.15 K (mol/(kg*bar))
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	Not Reported
pH	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported

EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties (e.g., if the physical state is described as a liquid, the substance should have a melting point below 25°C and a boiling point above 25°C) or behaviors.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	Low	Data is from a publicly available, peer-reviewed database; however, data are from an unknown source.
	Metric 6:	Models	N/A	Not applicable to this source.

## Overall Quality Determination

**Medium**

\* Related References: The cited paper is a literature review. No citation provided.

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	112.5 - Pa m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Gossett 1987 HERO ID 732584

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	99.00 - Pa m3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Dilling 1977 HERO ID 18370

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	143.00 - Pa m3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Ashworth et al. 1988 HERO ID 5178812

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	110 - Pa m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	NR
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Environmental Quality Standards 2005

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	152.0 - Pa m3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	30 deg C
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Tse et al. 1992 HERO ID 658808

<b>Study Citation:</b>	RIVM, (2007). Ecotoxicologically based environmental risk limits for several volatile aliphatic hydrocarbons. :217.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5159900

**EXTRACTION**

Parameter	Data
Henry's Law	101.3 - Pa m3/mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Temperature	20 deg C
pH	NR
System	NR
Standard Deviation Results	NR
Results Details	Not Reported
Results Details Methods	NR

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Primary Source: Tse et al. 1992 HERO ID 658808

<b>Study Citation:</b>	Rumble, J. R. (2018). Aqueous solubility and Henry's law constants of organic compounds. :5-148 - 5-177.
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5932745

**EXTRACTION**

Parameter	Data
Henry's Law	0.14 kPa m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Acid-washed and fractionally distilled prior to use.
Radiolabel, Source, State, and Purity	Not Reported; HPLC organic-free reagent grade; Liquid; >99.96
Temperature	25°C
pH	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Reported as 0.14 kPa m <sup>3</sup> mol <sup>-1</sup>
Results Details Methods	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for 1,2-Dichloroethane. 107-06-2..
<b>OECD Harmonized Template:</b>	Henry's Law
<b>HERO ID:</b>	5926142

**EXTRACTION**

Parameter	Data
Henry's Law	0.00118 atm-m <sup>3</sup> /mol
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Temperature	25°C
pH	Not Reported
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported
Results Details Methods	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical's physical/chemical properties.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: PhysProp. Leighton, DT JR and Calo, JM 1981

<b>Study Citation:</b>	Corradini, F., Marchetti, A., Preti, C., Tagliazucchi, M., Tassi, L. (1995). Dielectric properties of binary mixtures of 1,2-dichloroethane plus ethane-1,2-diol and 1,2-dichloroethane plus 2-methoxyethanol. Australian Journal of Chemistry 48(9):1541-1548.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	4149156

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; preserved over 3A molecular sieves for many days before us; NR
Radiolabel, Source, State, and Purity	NR; Carlo Erba (Milan); NR; final purity 99.8% Notes: contained >0.10% water; further purified by simple distillation over anhydrous NaKCO <sub>3</sub> ; middle portion (bp 83.5°C) kept for measurements
Dielectric Constant	10.95
Temperature	20°C
System	Not Reported
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Corradini, F., Marchetti, A., Preti, C., Tagliazucchi, M., Tassi, L. (1995). Dielectric properties of binary mixtures of 1,2-dichloroethane plus ethane-1,2-diol and 1,2-dichloroethane plus 2-methoxyethanol. Australian Journal of Chemistry 48(9):1541-1548.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	4149156

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; preserved over 3A molecular sieves for many days before us; NR
Radiolabel, Source, State, and Purity	NR; Carlo Erba (Milan); NR; final purity 99.8% Notes: contained >0.10% water; further purified by simple distillation over anhydrous NaKCO <sub>3</sub> ; middle portion (bp 83.5°C) kept for measurements
Dielectric Constant	10.69
Temperature	Not Reported
System	Purity 99.8%25C
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Elsevier, (2019). Reaxys: physical-chemical property data for 1,2-dichloroethane. CAS Registry Number: 107-06-2.  
**OECD Harmonized Template:** Dielectric Constant  
**HERO ID:** 5926415

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Dielectric Constant	10.13 - 10.66
Temperature	20-25°C
System	Not Reported
Results Value	Not Reported
Results Details	@ 20-25°C; 18 values were reported in Reaxys; 6 of these values were reported in the range of 10.1 to 10.65 at 20-25 C; 11 values were outside this range or measured at unreported or non-standard temperatures.

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a secondary database with a references to the peer-reviewed original source.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Data range determined from multiple primary sources in REAXYS.

**Study Citation:** HSDB, (2018). 1,2-Dichloroethane (CASRN: 107-06-2).  
**OECD Harmonized Template:** Dielectric Constant  
**HERO ID:** 5175150

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Dielectric Constant	10.45
Temperature	20°C
System	Not Reported
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

\* Related References: Snedecor G, et al. 2004. Chloroethylenes. Kirk-Othmer Encyclopedia of Chemical Technology.

<b>Study Citation:</b>	Pawar, V. P. (2006). Dielectric relaxation of propan-1-ol with chlorobenzene, 1,2-dichloroethane, and dimethylene chloride at (288, 298, 308, and 318) K using time-domain reflectometry technique. Journal of Chemical and Engineering Data 51(3):882-885.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	4698126

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not applicable
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Qualigens Fine Chemicals Pvt Ltd, Bombay, India; NR; 99.0% based on GC analysis Notes: used without further purification
Dielectric Constant	10.43
Temperature	298 K
System	Time domain reflectometry (TDR).
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Pawar, V. P., Mehrotra, S. C. (2002). Dielectric relaxation study of chloro group with associative liquids. II. 1,2-dichloroethane with methanol, ethanol, and 1-propanol. Journal of Solution Chemistry 31(7):577-588.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	1161074

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Dielectric Constant	10.88
Temperature	15°C
System	The dielectric constant was determined using time-domain reflectometry (TDR) over 10 to 20 MHZ, at 15°C.
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Pawar, V. P., Mehrotra, S. C. (2002). Dielectric relaxation study of chloro group with associative liquids. II. 1,2-dichloroethane with methanol, ethanol, and 1-propanol. Journal of Solution Chemistry 31(7):577-588.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	1161074

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Dielectric Constant	10.43
Temperature	25°C
System	The dielectric constant was determined using time-domain reflectometry (TDR) over 10 to 20 MHZ, at 25°C.
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Pawar, V. P., Mehrotra, S. C. (2002). Dielectric relaxation study of chloro group with associative liquids. II. 1,2-dichloroethane with methanol, ethanol, and 1-propanol. Journal of Solution Chemistry 31(7):577-588.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	1161074

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Dielectric Constant	10.1
Temperature	35°C
System	The dielectric constant was determined using time-domain reflectometry (TDR) over 10 to 20 MHZ, at 35°C.
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

<b>Study Citation:</b>	Pawar, V. P., Mehrotra, S. C. (2002). Dielectric relaxation study of chloro group with associative liquids. II. 1,2-dichloroethane with methanol, ethanol, and 1-propanol. Journal of Solution Chemistry 31(7):577-588.
<b>OECD Harmonized Template:</b>	Dielectric Constant
<b>HERO ID:</b>	1161074

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR
Dielectric Constant	9.82
Temperature	45°C
System	The dielectric constant was determined using time-domain reflectometry (TDR) over 10 to 20 MHZ, at 45°C.
Results Value	Not Reported
Results Details	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5: Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** Dreher, E. L., Beutel, K. K., Myers, J. D., Lübbe, T., Krieger, S., Pottenger, L. H. (2014). Chloroethanes and chloroethylenes. :1-81.  
**OECD Harmonized Template:** Other Properties  
**HERO ID:** 4293766

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; Not Reported
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	Not reported; Not reported; Not reported; Not reported
Radiolabel, Source, State, and Purity	Not reported; Not reported; Not reported; Not reported Notes: Not reported
Results Value	Heat of evaporation at 298 K: 34.7 kJ/mol
Results Details	Not reported
Results Remarks	Not reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	High	Data is from a known data-collection, prepared by experts in the field.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****High**

**Study Citation:** U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.  
**OECD Harmonized Template:** Other Properties  
**HERO ID:** 7325487

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Value	Enthalpy of formation (vapor) = 122.6 kJ/g*mol
Results Details	Not Reported
Results Remarks	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

**Study Citation:** U.S. EPA, (1984). Locating and estimating air emissions from sources of ethylene dichloride.  
**OECD Harmonized Template:** Other Properties  
**HERO ID:** 7325487

**EXTRACTION**

Parameter	Data
CASRN and Test Material	107-06-2; 1,2-dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR
Results Value	Enthalpy of formation (liquid) = 157.3 kJ/g*mol
Results Details	Not Reported
Results Remarks	Not Reported

**EVALUATION**

Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2: Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4: Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate OR the analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

**Overall Quality Determination****Medium**

\* Related References: Cites secondary sources: Kirk Othmer 1979 (precursor to HEROID 3827414); US EPA Chemical Producers Data Base System 1981 (HEROID unknown).

<b>Study Citation:</b>	Wallington, T. J., Bilde, M., Mogelberg, T. E., Sehested, J., Nielsen, O. J. (1996). Atmospheric chemistry of 1,2-dichloroethane: UV spectra of CH <sub>2</sub> CICHCl and CH <sub>2</sub> CICHClO <sub>2</sub> radicals, kinetics of the reactions of CH <sub>2</sub> CICHCl radicals with O-2 and CH <sub>2</sub> CICHClO <sub>2</sub> radicals with NO and NO <sub>2</sub> , and fate of the alkoxy radical CH <sub>2</sub> CICHClO. Journal of Physical Chemistry 100(14):5751-5760.
<b>OECD Harmonized Template:</b>	Other Properties
<b>HERO ID:</b>	5442746

<b>EXTRACTION</b>	
<b>Parameter</b>	<b>Data</b>
CASRN and Test Material	107-06-2; 1,2-Dichloroethane
Confidentiality, Type, and Guideline	None; Experimental; None; pulse radiolysis technique at 230-300 nm
Solvent, Reactivity, Storage, and Stability	SF <sub>6</sub> (Sulfur hexafluoride); NR; NR; NA
Radiolabel, Source, State, and Purity	NR; NR; gas; NR Notes: NR
Results Value	1,2-Dichloroethane radical species (CH <sub>2</sub> CICHCl) max UV absorption at 230 nm and 250 nm was observed following the pulse radiolysis of the CH <sub>2</sub> CICH <sub>2</sub> Cl/SF <sub>6</sub> mixture.
Results Details	To monitor the transient UV absorption, the output of a pulsed 150 W xenon arc lamp was multi-passed through the reaction cell using internal White type optics (80 or 120 cm path length).
Results Remarks	Gaseous forms of SF <sub>6</sub> and the test substance were mixed in a 1 L stainless steel reactor with a 30 ns pulse of 2 MeV electrons from a Febetron 705B field emission accelerator.

<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1: Representativeness	Medium	Data are measured for the radical of the subject chemical substance.	
	Metric 2: Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.	
Domain 2: Test Reliability	Metric 3: Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.	
	Metric 4: Reliability/Analytical Method	Medium	The analytical method details are unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source.	
Domain 3: Other	Metric 5: Databases	N/A	Rating of this factor is not applicable to this kind of information.	
	Metric 6: Models	N/A	Rating of this factor is not applicable to this kind of information.	

## Overall Quality Determination

## Medium

## List of Abbreviations and Acronyms for Data Quality Evaluation and Extraction Tables

Term	Definition
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
atm	Atmospheres
atm · m <sup>3</sup> /mol	Atmospheres - cubic meters per mole
C	Celsius
CASRN	Chemical Abstract Service registry number
cP	Centipoise
CRC	CRC Handbook of Chemistry and Physics
DOE	U.S. Department of Energy
ECB	European Chemicals Bureau
EPA	Environmental Protection Agency
F	Fahrenheit
GC	Gas Chromatography
g/cm <sup>3</sup>	Grams per cubic centimeter
GLP	Good Laboratory Practice
HLC	Henry's Law Constant
HPV	High Production Volume
HSDB	Hazard Substance Data Bank
ILO	International Labour Organization
IPCS	International Programme on Chemical Safety
IUCLID	International Uniform Chemical Information Database
K	Kelvin
K <sub>oa</sub>	Octanol-Air partition coefficient
K <sub>ow</sub>	Octanol-Water partition coefficient
mg/L	Milligrams per Liter
mol	Mole
mmHg	Millimeters of Mercury
MS	Mass Spectrometry
N/A	Not Applicable
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NLM	National Library of Medicine
NR	Not Reported
OECD	Organisation for Economic Co-operation and Development
Pa (hPa)	Pascals (hectopascals; 1 hPa = 100 Pa)
pH	Negative base 10 Log of Hydrogen Ion (H <sup>+</sup> ) Concentration in Aqueous Solution
pK <sub>a</sub>	Negative base 10 Log of Acid Dissociation Constant (K <sub>a</sub> )
RIVM	National Institute for Public Health and the Environment (Dutch: Rijksinstituut voor Volksgezondheid en Milieu)

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Term	Definition
RSC	Royal Society of Chemistry
RT	Retention Time
SIDs	Screening Information Dataset
VP	Vapor Pressure
US or USA	United States of America
UV (UV-Vis)	Ultra Violet (UV-Visible)
WHO	World Health Organization