



### Data Quality Evaluation and Data Extraction Information for Physical and Chemical Properties for Diethylhexyl Phthalate (DEHP) (1,2-Benzenedicarboxylic acid, 1,2-bis(2-ethylhexyl) ester)

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

**CASRN: 117-81-7** 

May 2025

This supplemental file contains information regarding the data extraction and evaluation results for data sources that were considered for the *Draft Risk Evaluation for Diethylhexyl Phthalate (DEHP)* and 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 *Draft Systematic Review Protocol for Diethylhexyl Phthalate (DEHP)*. 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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5926123	NLM, (2015). PubChem: Hazardous Substance Data Bank: Bis(2-ethylhexyl) phthalate, 117-81-7.	227
5926381	O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517.	228
5926269	RSC, (2019). ChemSpider: Bis-(2-ethylhexyl) phthalate.	229
5349351	Rumble, J. R., (Ed.) (2018). Bis(2-ethylhexyl) phthalate. :3-6.	230
Henry's Law		

Table of Contents Diethylhexyl Phthalate

675060	Cousins, A. P., Remberger, M., Kaj, L., Ekheden, Y., Dusan, B., Brorstroem-Lunden, E. (2007). Results from the Swedish National Screening Programme 2006. Subreport 1: Phthalates. GRA and I(GRA and I):39.			
4159647	Cousins, I., Mackay, D. (2000). Correlating the physical-chemical properties of phthalate esters using the 'three solubility' approach. Chemosphere 41(9):1389-1399.			
5926428	Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7	233		
7265437	EPA,, Danish (2011). Annex XV restriction report: Proposal for a restriction, version 2. Substance name: bis(2-ehtylhexyl)phthlate (DEHP), benzyl butyl phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP).	234		
807140	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.	235		
680058	Lundberg, G., Nilsson, C. (1994). Phthalic acid esters used as plastic additives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of toxicological effects. GRA and I(GRA and I):284.	236		
658013	Meylan, W. M., Howard, P. H. (1991). Bond contribution method for estimating Henry's law constants. Environmental Toxicology and Chemistry 10(10):1283-1293.	237		
5178600	NICNAS, (2008). Existing chemical hazard assessment report: Diethylhexyl phthalate.	238		
7500055	The Massachusetts Toxics Use Reduction Institute (2006). Five chemicals alternatives assessment study.	239		
Nanomaterial Zeta				
Dielectric Constant				
5926428	Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7	240		
5926123	NLM, (2015). PubChem: Hazardous Substance Data Bank: Bis(2-ethylhexyl) phthalate, 117-81-7.	241		
UV and Visible Absorption				
5160110	NTP, (1982). NTP technical report on the carcinogenesis bioassay of di(2-ethylhexyl)phthalate (CAS no. 117-81-7) in F344 rats and B6C3F1 mice (feed study).	242		
697784	Yu, O., Chung, J., Kwak, S. (2008). Reduced migration from flexible poly(vinyl chloride) of a plasticizer containing beta-cyclodextrin derivative. Environmental Science & Technology 42(19):7522-7527.	243		
Other Properties				
807140	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.	245		
Miscellaneous				
List of Abbreviations and Acronyms for	· Data Quality Evaluation and Extraction Tables	246		

Study Citation: OECD Harmonized	DOE, (2016). T Physical Form	Table 1: Chemicals of concern and assoc or State	iated chemical inf	ormation. PACs.
Template: HERO ID:	3981013			
			EXTRACTIO	N
Parameter		Data		
CASRN and Test Material		117-81-7; Di-sec-octylphthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; NR; NR Notes: NR		
Results Value		liquid		
Results Details		not specified		
			EVALUATIO	N
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 Reliabil	lity			
	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.

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

Study Citation:	ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the			
OECD Harmonized	Annex XV dossier proposing restrictions on four phthalates: Annexes.  d Physical Form or State			
Template:				
HERO ID:	7325405			
			EXTRACTIO	ON .
Parameter		Data		
CASRN and Test Material		117-81-7; DEHP		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
Results Value		Colourless oily liquid		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 Qualit	Overall Quality Determination High			

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Study Citation:

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

Physical Form or State

**Template:** 

**HERO ID:** 1614673

EXTR	ACT	rt <i>c</i>	N
	AU		,,,

Parameter	Data
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR
Results Value	colourless oily liquid at normal temperature.
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 of other physical/chemical properties or behaviors.
Domain 2: Test Reliab	bility			
	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

HERO ID: 680058 Table: 1 of 1

04 1	C1.4 4.
Study	Citation:

Lundberg, G., Nilsson, C. (1994). Phthalic acid esters used as plastic additives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of

toxicological effects. GRA and I(GRA and I):284.

OECD Harmonized

Physical Form or State

Template:

**HERO ID:** 680058

EXTR	11	ודר	M	N

Parameter	Data
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	no; not specified; NR
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR Notes: DEHP
Results Value	colorless to yellow, oily liquid
Results Details	at room temperature and normal atmospheric pressure

			<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 or behaviors.
Domain 2: Test Reliab	oility			
	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

#### Medium

HERO ID: 5178600 Table: 1 of 1

Study Citation: OECD Harmonized	NICNAS, (2008 Physical Form	8). Existing chemical hazard assessmen or State	t report: Diethylhexyl pl	hthalate.
Template: HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and	Guideline	no; not specified; not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR		
Results Value		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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	ity			
	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

HERO ID: 192177 Table: 1 of 1

<b>Study Citation:</b>
<b>OECD Harmonized</b>
Tompleter

NIOSH, (2007). NIOSH pocket guide to chemical hazards.

Databases

Physical Form or State

Metric 5:

		EXTRACTIO	N
Parameter	Data		
CASRN and Test Material	117-81-7; Di(2-ethylhexyl)phthalate		
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, oily liquid; a slight odor		
Results Details	Not Reported		
		EVALUATIO	N
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	N/A	Rating of this factor is not applicable to this kind of information.
	(Method Objectivity)		• • • • • • • • • • • • • • • • • • • •
Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.

Metric 6: Models			original sources.  Rating of this factor is not applicable to this kind of information.
Overall Quality Determina	tion	High	

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

NIOSH, (2019). NIOSH pocket guide to chemical hazards: Di-sec octyl phthalate.

**DECD Harmonized** Physical Form or State

Template:

**HERO ID:** 8407718

EXTRACTION	

Parameter	Data
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate
Confidentiality, Type, and Guideline	none; not specified; not specified
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported
Results Value	liquid
Results Details	Colorless, oily liquid with a slight odor.

			<b>EVALUATIO</b>	N
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 Reliab	oility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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

OEHHA, (1997). Public health goal for di(2-ethylhexyl)phthalate (DEHP) in drinking water.

**ECD Harmonized** Physical Form or State

Template:

**HERO ID:** 5155636

*****		~		
H:X'	ľKA	(C"T	ION	

Parameter	Data	
CASRN and Test Material	117-81-7; 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	
Results Value	Light colored liquid; slight odor	
Results Details	Not Reported	

			<b>EVALUATIO</b>	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The 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 Reliab	oility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 publicly available secondary source without references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

Study Citation: OECD Harmonized	NLM, (2015). I Physical Form	PubChem: Hazardous Substance Data Ba or State	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template:	-,			
HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State,		Not Reported; NR; NR; NR		
Results Value	•	liquid		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Haynes, W.M. (Ed.) 2014. CRC Handbook of Chemistry and Physics. 95th edition. CRC Press LLC, Boca Raton: FL. P. 3-54.

O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517.

Physical Form or State

Template:

HERO ID: 5926381

EVED	ACTION
H.XIK	AL LILIN

Parameter	EXTRACTION  Data
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR
Results Value	liquid
Results Details	Not Reported

			EVALUATIO	N
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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	(Method Objectivity) Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
		3 3		
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.

Study Citation: OECD Harmonized	RSC, (2019). C Physical Form of	ChemSpider: Bis-(2-ethylhexyl) phthalate. or State		
Template: HERO ID:	5926269			
			EXTRACTIO	N
Parameter		Data		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Value		liquid		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 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 Qualit	tv Determi	nation	High	

<sup>\*</sup> Related References: NIOSH

Rumble, J. R., (Ed.) (2018). Bis(2-ethylhexyl) phthalate. :3-6.

Physical Form or State

Template:

**HERO ID:** 5349351

	EXTRACTION
Parameter	Data
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR
Results Value	liquid
Results Details	Not Reported

			<b>EVALUATIO</b>	N
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 Reliabi	ility			
	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 Quali	ty Determ	ination	High	

Study Citation: OECD Harmonized	Elsevier, (2021) Physical Form		ta for Di(2-ethyl	hexyl) phthalate. CAS Registry Number: 117-81-7
Template: HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Results Details		colorless		
			EVALUATIO	N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 peer-reviewed database that contains references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

<sup>\*</sup> Related References: Value reported by multiple primary sources in REAXYS.

EXTRACTION

Diethylhexyl Phthalate Physical Form or State HERO ID: 5926428 Table: 2 of 4

Study Citation:

Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7..

OECD Harmonized

Physical Form or State

Data

Template: HERO ID:

Parameter

CASRN and Test Mater. Confidentiality, Type, ar	nd Guideline	117-81-7; Bis(2-ethylhexyl)phthalate None; Experimental; Not reported		
Solvent, Reactivity, Storage, and Stability Radiolabel, Source, State, and Purity		NR; NR; NR Not Reported; NR; NR; NR		
Results Details	e, and Purity	white		
			EVALUATIO	N
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 Relia	bility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	(Method Objectivity) 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 peer-reviewed database that contains references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qua	lity Determi	nation	High	

<sup>\*</sup> Related References: Value reported by multiple primary sources in REAXYS.

EXTRACTION

Study Citation:

Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7..

OECD Harmonized

Physical Form or State

Data

Template: HERO ID:

Parameter

CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR		
Results Details	yellow		
		EVALUATIO	N .
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	N/A	Rating of this factor is not applicable to this kind of information.
	(Method Objectivity)		
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 peer-reviewed database that contains references to the original sources.
Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Detern	nination	High	
Over all Quality Determ	เมเลเเซน	mgir	

<sup>\*</sup> Related References: Value reported by multiple primary sources in REAXYS.

EXTRACTION

Study Citation:

Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7..

OECD Harmonized

Physical Form or State

Data

Template: HERO ID:

**Parameter** 

CASDA ATT AND A	117.01.7 D' (2.4 H. D.14 L.		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Results Details	light-yellow		
		EVALUATIO	 N
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	N/A	Rating of this factor is not applicable to this kind of information.
	(Method Objectivity)		8
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 peer-reviewed database that contains references to the original sources.
Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
			6
<b>Overall Quality Determi</b>	ination	High	

<sup>\*</sup> Related References: Amatya, Sajan; Tuladhar, Sarbajna M.; Zeitschrift fur Naturforschung - Section B Journal of Chemical Sciences; vol. 60; nb. 9; (2005); p. 1006 - 1011

Study Citation: OECD Harmonized	NLM, (2015). I Physical Form	PubChem: Hazardous Substance Data Ba or State	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.	
Template: HERO ID:	5926123				
			EXTRACTIO	N	
Parameter		Data			
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate			
Confidentiality, Type, and	Guideline	None; Experimental; Not reported			
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR			
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR			
Results Details		colorless, oily liquid; slight odor			
			EVALUATIO	N	
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 Reliabi	lity				
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.	
		(Method Objectivity)			
	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.	

<sup>\*</sup> Related References: NIOSH. 2010. 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

Study Citation: OECD Harmonized	RSC, (2019). C Physical Form of	hemSpider: Bis-(2-ethylhexyl) phthalate or State		
Template: HERO ID:	5926269			
<u> </u>			EXTRACTIO	N
Parameter		Data	LATRACTIO	
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Details		colorless, oily liquid w/slight odor		
			EVALUATIO	N .
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 Reliabil	ity			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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 database that references a peer-reviewed source.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

<sup>\*</sup> Related References: NIOSH

OECD Harmonized Template: HERO ID:  Parameter  Melting Point	Melting Point	nd cancer potency values.	EXTRACTIO	
HERO ID: 5  Parameter  Melting Point	5155632	Doto	FYTDACTIO	
Parameter  Melting Point	5155632	Data	EVTDACTIO	
Melting Point		Doto	EVTDACTIO	
Melting Point		Doto	EATRACTIO	N
•		Data		
•		-50 °C		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and Gui	deline	none; not specified; Not reported		
Solvent, Reactivity, Storage, a	nd Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and	-	NR; NR; NR; NR Notes: NR		
Results Details Methods	•	NR		
Standard Deviation Results		NR		
Results Details		Not Reported		
			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
ľ	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
1	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
Ī	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.
1	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.
l l	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality	Determin	etion	High	

<sup>\*</sup> Related References: Citing HSDB 1994.

Study Citation: Cousins, A. P., Remberger, M., Kaj, L., Ekheden, Y., Dusan, B., Brorstroem-Lunden, E. (2007). Results from the Swedish National Screening Pt 2006. Subreport 1: Phthalates. GRA and I(GRA and I):39.			anden, E. (2007). Results from the Swedish National Screening Programme	
OECD Harmonized	Melting Point	2).		
Template:	-			
HERO ID:	675060			
			EXTRACTION	
Parameter		Data		
Melting Point		-46 °C		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	None; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Results	s	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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	lity			
	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 Quali	tv Determi	nation	Medium	

<sup>\*</sup> Related References: Cousins, I. T., Mackay, D., Parkerton, T. F.. Physical-chemical properties and evaluative fate modelling of phthalate esters. The Handbook of Environmental Chemistry, vol 3Q. 2003. 3:57-84.

Study Citation: OECD Harmonized	DOE, (2016). T Melting Point	Table 1: Chemicals of concern and associated	ciated chemical inf	ormation. PACs.
Template: HERO ID:	3981013			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-55 - °C		
CASRN and Test Material		117-81-7; Di-sec-octylphthalate		
Confidentiality, Type, and	Guideline	none; not specified; none		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; NR; NR Notes: NR		
Results Details Methods		not reported		
Standard Deviation Results	S	not reported		
Results Details		not reported		
			EVALUATIO	N
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 Reliabil	lity			
	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 Qualit	ty Determi	nation	High	

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

Study Citation:		Committee for Risk Assessment (RAC sier proposing restrictions on four phthal		Socio-economic Analysis (SEAC): Background document to the Opinion on the
OECD Harmonized	Melting Point	sier proposing restrictions on rour phinar	aics. Aimeres.	
Template:	_			
HERO ID:	7325405			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-5550 °C		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C	duideline	none; not specified; not specified		
Solvent, Reactivity, Storage	, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	nd Purity	NR; NR; liquid; NR		
Results Details Methods		not reported		
Standard Deviation Results		not reported		
Results Details		Not Reported		
			EVALUATIO	N .
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 Reliabili	ty			
	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 Qualit	v Determi	nation	High	

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Study Citation: ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).  OECD Harmonized Melting Point			nalate (DEHP).	
Template:				
HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
Melting Point		-50 °C		
CASRN and Test Material		117-81-7; bis(2-ethyl hexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR		
Results Details Methods		Not Reported		
Standard Deviation Results	S	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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	ity			
	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Rippen (2005) Handbuch Umweltchemikalien, 13.Erg.Lfg.1/92. Latest update no 72 (2005)Sorbe G (1984) Sicherheitstechnische Kenndaten Chemischer Stoffe; Ecomed, Landsberg, 1984;Loseblattsammlung, Stand 19, Erg-Lfg 10/90

Diethylhexyl Phthalate Melting Point HERO ID: 1614673 Table: 2 of 2

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

**OECD Harmonized** Melting Point **Template: HERO ID:** 1614673 EXTRACTION **Parameter** Data −55 °C Melting Point CASRN and Test Material 117-81-7; bis(2-ethylhexyl) phthalate Confidentiality, Type, and Guideline no; not specified; Not Reported Solvent, Reactivity, Storage, and Stability NR; NR; NR; NR Radiolabel, Source, State, and Purity NR; NR; liquid; NR Results Details Methods pour point Standard Deviation Results Not Reported Not Reported Results Details

			<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 o other physical/chemical properties or behaviors.
Domain 2: Test Relia	bility			
	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

**Study Citation:** 

<sup>\*</sup> Related References: BUA (1986). Di-(2-ethylhexyl) phthalate. BUA Report 4. January 1986. Gesellschaft Deutscher Chemiker.; CRC (1995) Handbook of Chemistry and Physics, 76:th ed Boca Raton, Fl: CRC Press Inc. 3-38

Study Citation: OECD Harmonized	Elsevier, (2021) Melting Point	). Reaxys: physical-chemical property data	for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
Template:				
HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-47 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Measured conditions were not reported.		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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	ty Determi	nation	High	

<sup>\*</sup> Related References: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb. 4; (1997); p. 667 - 749

Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7...

Diethylhexyl Phthalate Melting Point HERO ID: 5926428 Table: 2 of 2

**OECD Harmonized** Melting Point **Template: HERO ID:** 5926428 EXTRACTION **Parameter** Data -50 °C Melting Point CASRN and Test Material 117-81-7; Bis(2-ethylhexyl)phthalate Confidentiality, Type, and Guideline None; Experimental; Not Reported NR; NR; NR; NR Solvent, Reactivity, Storage, and Stability Radiolabel, Source, State, and Purity Not Reported; NR; NR; NR Results Details Methods Measured conditions were not reported. Standard Deviation Results Not Reported Not Reported Results Details

			EVALUATIO:	N
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 Reliab	oility			
	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

**Study Citation:** 

<sup>\*</sup> Related References: Meyer; Gearhart; Industrial and Engineering Chemistry; vol. 40; (1948); p. 1478,1480

Diethylhexyl Phthalate Melting Point HERO ID: 9431744 Table: 1 of 1

Study Citation: Helmick, L. S., Jones, W. R., Jr (1990). Determination of the thermal stability of fluids by tensimetry: Instrumentation and procedure. Tribology

Transactions 33(4):519-528.

OECD Harmonized

Melting Point

**Template:** 

**HERO ID:** 9431744

FYTD	ACTION
LAIN	ACTION

Parameter	Data
Melting Point	263.08 (536.2) C (K)
CASRN and Test Material	Not Reported; bis(2-ethylehexyl) phthalate
Confidentiality, Type, and Guideline	none; experimental; non-guideline; thermal decomposition by tensimetry
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; liquid; vacuum distilled prior to use Notes: dioctyl phthalate
Results Details Methods	Computerized tensimeter; log of isothermal change in pressure was plotted as a function of the reciprocal of the absolute temperature.
Standard Deviation Results	$\pm 2^{\circ}\mathrm{C}$
Results Details	Decomposition temperature obtained from linear regression analysis.

			<b>EVALUATIO</b>	N
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 Reliab	oility			
	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 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 High

Study Citation:	Mitsunobu, S., Takahashi, Y. (2006). Study of the water solubility and sorption on particulate matters of phthalate in the presence of humic acid using C-14 labelled di-(2-ethylhexyl)phthalate. Water, Air, and Soil Pollution 175(1-4):99-115.					
OECD Harmonized	Melting Point					
Template:						
HERO ID:	501984					
			EXTRACTIO	N		
Parameter		Data				
		<b>70.0</b> 0				
Melting Point		-50 °C				
CASRN and Test Material	G : 1 1:	117-81-7; Di-(2-ethylhexyl) phthalate				
Confidentiality, Type, and		None; not specified; Not Reported				
Solvent, Reactivity, Storag	•	NR; NR; NR	ND - 00	AT		
Radiolabel, Source, State,	and Purity	14C (433 MBq/mol); Sigma Chemical Co.; NR; >99 percent Notes: diluted by hexane to prepare stock solution				
Results Details Methods		Not Reported				
Standard Deviation Results	S	Not reported				
Results Details		Not reported				
			EVALUATIO	N		
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 Reliabil	lity					
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased		
	3.6	(Method Objectivity)	<b>T</b>	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						
Domain 5. Other						

# Overall Quality Determination High

Databases

Models

Metric 5:

Metric 6:

High

N/A

Data is from a peer-reviewed primary source.

Rating of this factor is not applicable to this kind of information.

Study Citation: OECD Harmonized	NICNAS, (2008 Melting Point	8). Existing chemical hazard assessmen	t report: Diethylhexyl p	hthalate.	
Template: HERO ID:	5178600				
			EXTRACTION		
Parameter		Data			
Melting Point		-47 °C			
CASRN and Test Material		117-81-7; diethylhexyl phthalate			
Confidentiality, Type, and		no; not specified; not reported			
Solvent, Reactivity, Storag	-	NR; NR; NR; NR			
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR			
Results Details Methods		Not Reported			
Standard Deviation Result	S	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 or other physical/chemical properties or behaviors.	
Domain 2: Test Reliabi	litv				
	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 includes references to the original sources.	
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.	
Overall Quali	ty Determi	nation	Medium		

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

**Study Citation:** 

NIOSH, (2007). NIOSH pocket guide to chemical hazards.

OECD Harmonized	Melting Point			
Template: HERO ID:	192177			
HERO ID:	1921//		EXTED A CITION	NY.
Parameter		Data	EXTRACTION	
1 ar ameter		Duu		
Melting Point		-58 - F		
CASRN and Test Material		117-81-7; Di(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a		NR; NR; NR; NR Notes: NR		
Results Details Methods	·	NR		
Standard Deviation Results		NR		
Results Details		Reported as freezing point		
			EVALUATION	N.
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 Reliabili	ity			
	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				
Domain 3. Outei	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.
	mente o.	11104015	11/11	reading of this factor is not applicable to this kind of information.
<b>Overall Qualit</b>	y Determin	ation	High	

Overall Quality Determination	
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Study Citation: OECD Harmonized	NIOSH, (2019) Melting Point	. NIOSH pocket guide to chemical hazard	ds: Di-sec octyl 1	ohthalate.
Template: HERO ID:	8407718			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-58 F		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	Not Reported; Not Reported; Not Report	ted; Not Reported	
Radiolabel, Source, State, a	and Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Results Details Methods		not reported		
Standard Deviation Results	8	not reported		
Results Details		Freezing point		
			EVALUATIO	N
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 Reliabil	lity			
	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 Qualit	tv Determi	nation	High	

<sup>\*</sup> Related References: Reported in several HERO IDs 5926154; 501984; 5926428; 5926269

Study Citation: OECD Harmonized	NLM, (2015). I Melting Point	PubChem: Hazardous Substance Data Bar	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template: HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-55 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	-	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL. P. 3-54.

Diethylhexyl Phthalate Melting Point HERO ID: 679847 Table: 1 of 1

Study Citation: OECD Harmonized Template:	NTP, (2000). N Melting Point	TP-CERHR expert panel report on di(2-e	thylhexyl) phtha	late. GRA and I(GRA and I):120.
HERO ID:	679847			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-47 °C		
CASRN and Test Material		117-81-7; Di-(2-Ethylhexyl) Phthalate		
Confidentiality, Type, and C	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage	, and Stability	Not Reported; Not Reported; Not Report	ted; Not Reported	
Radiolabel, Source, State, a	nd Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Results Details Methods		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabili	ity			
	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 Qualit	v Determi	nation	High	

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

Study Citation: OECD Harmonized	O'Neil, M. J. (2 Melting Point	2013). DEHP. 117-81-7. [Bis(2-ethylhexy	(l) ester]. :517.	
Template:	C			
HERO ID:	5926381			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-47 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: O'Neil, M.J. (Ed.). 2013. The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry. p. 517.

<b>Study Citation:</b>	Park, C., Sheehan, R. J. (2000). Phthalic acids and other benzenepolycarboxylic acids. :1-45.
<b>OECD Harmonized</b>	Melting Point
Template:	
HEDO ID.	(7070)

<b>HERO ID:</b> 679796			
		EXTRACTIO	N .
Parameter	Data		
Melting Point	-46 °C		
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage, and Stabilit			
Radiolabel, Source, State, and Purity	NR; NR; NR		
Results Details Methods	Not Reported		
Standard Deviation Results	Not reported		
Results Details	Not Reported		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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 Dete	rmination	High	

Study Citation: OECD Harmonized	RSC, (2019). C Melting Point	ChemSpider: Bis-(2-ethylhexyl) phthalate	2.	
Template:				
HERO ID:	5926269			
			EXTRACTION	
Parameter		Data		
Melting Point		-50 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Result	S	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 Reliabi	lity			
	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: LabNetwork

Study Citation: OECD Harmonized	Rumble, J. R., ( Melting Point	Ed.) (2018). Bis(2-ethylhexyl) phthalate.	. :3-6.	
Template:				
HERO ID:	5349351			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-55 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	y Determi	nation	High	

Study Citation: OECD Harmonized	U.S. EPA, (201 Melting Point	9). Comptox Chemicals Dashboard: Di(2-	ethylhexyl) phtl	nalate (CASRN 117-81-7).
Template: HERO ID:	5926154			
			EXTRACTIO	N
Parameter		Data		
Melting Point		-55 °C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Results Details Methods		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	ination	High	

<sup>\*</sup> Related References: PhysProp

EXTRACTION

Diethylhexyl Phthalate Melting Point HERO ID: 5926154 Table: 2 of 6

Study Citation: OECD Harmonized U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

rmonized Melting Point

Template:

**HERO ID:** 5926154

Parameter	Data		
Melting Point	-50 °C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Results Details Methods	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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.

## **Overall Quality Determination**

Metric 5:

Metric 6:

Databases

Models

High

High

N/A

Data is from a publicly available database that references a peer-reviewed source.

Rating of this factor is not applicable to this kind of information.

Domain 3: Other

<sup>\*</sup> Related References: NIOSH

Diethylhexyl Phthalate Melting Point HERO ID: 5926154 Table: 3 of 6

**Study Citation:** U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7). **OECD Harmonized** Melting Point

Template: 5926154			
		EXTRACTION	
Parameter	Data		
Melting Point	-50 °C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
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	Medium	There is no indication that the methodology for producing the information was biased
<b>36</b>	(Method Objectivity)	Ŧ	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

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

Models

Metric 6:

N/A

Rating of this factor is not applicable to this kind of information.

<sup>\*</sup> Related References: Jean-Claude Bradley Open Melting Point Dataset

Diethylhexyl Phthalate Melting Point HERO ID: 5926154 Table: 4 of 6

**Study Citation:** U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7). **OECD Harmonized** Melting Point

Template:

**HERO ID:** 5926154

FYTRACTION

_		EXTRACTION	
Parameter	Data		
Melting Point	-55 °C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; 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'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 Determine	ination	Medium	

<sup>\*</sup> Related References: Jean-Claude Bradley Open Melting Point Dataset

Study Citation:	
OFCD Harmonized	

U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

OECD Harmonized

Template:

Melting Point

		EXTRACTION	
Parameter	Data		
Melting Point	-55 °C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
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 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 Relial	bility			
	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

<sup>\*</sup> Related References: Alfa Aesar

Diethylhexyl Phthalate Melting Point HERO ID: 5926154 Table: 6 of 6

**Study Citation:** 

U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

OECD Harmonized

rmonized Melting Point

Template:

**HERO ID:** 5926154

<b>HERO ID:</b> 3920134			
		EXTRACTION	
Parameter	Data		
Melting Point	-55 °C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Results Details Methods	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		DYA T TARREST	
ъ	34	EVALUATION	
Domain	Metric	Rating	Comments
Domain 1: Substance	<b>.</b>	TT' 1	
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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 Determ	nination	Medium	
Overall Quality Determ	เมเลนงม	MEdialii	

<sup>\*</sup> Related References: Alfa Aesar

Study Citation:		ce of Environmental Health Hazard Asso and cancer potency values.	essment (OEHHA	(2011). Appendix B: Chemical-specific summaries of the information used to
OECD Harmonized	Boiling Point	and cancer potency variety.		
Template:				
HERO ID:	5155632			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		230 C		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C		none; not specified; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; NR; NR Notes: NR		
Standard Deviation Results	S	NR		
Results Details		At 5 mm Hg		
			EVALUATIO	N
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 Reliabil	itv			
	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				
Domain 3. Oulei	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Citing HSDB 1994.

Diethylhexyl Phthalate Boiling Point HERO ID: 675060 Table: 1 of 1

Study Citation:		- ·		em-Lunden, E. (2007). Results from the Swedish National Screening Programme			
OECD Harmonized	2006. Subreport 1: Phthalates. GRA and I(GRA and I):39. Boiling Point						
Template: HERO ID:	675060						
			EXTRACTIO	N			
Parameter		Data					
Boiling Point		230 C					
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate					
Confidentiality, Type, and C	Guideline	none; not specified; Not Reported					
Solvent, Reactivity, Storage		NR; NR; NR					
Radiolabel, Source, State, a	nd Purity	None; NR; NR; NR					
Standard Deviation Results	•	Not Reported					
Results Details		Not Reported					
			EVALUATIO	N			
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 Reliabili	ty						
	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	The data are from a primary source without expert peer-review or an unknown secondary source without peer-review and references to the original sources.			
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.			
Overall Qualit	v Dotormi	nation	Low				

 $<sup>^{\</sup>star}$  Related References: reference is given as EU RA with no further information

Study Citation: OECD Harmonized	CPSC, (2010). Boiling Point	Toxicity review of Di(2-ethylhexyl) Phth	alate (DEHP).	
Template: HERO ID:	2525689			
			EXTRACTION	
Parameter		Data		
Boiling Point		387 C		
CASRN and Test Material		117-81-7; di-ethylhexyl phthalate		
Confidentiality, Type, and	Guideline	No; Not specified; NR		
Solvent, Reactivity, Storage	e, and Stability	Not Reported; Not Reported; Not Repor	ted; Not Reported	
Radiolabel, Source, State, a	and Purity	Not Reported; Not Reported; Not Repor	ted; Not Reported	
Standard Deviation Results	3	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 Reliabil	ity			
	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 Qualit	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Citing ChemIDplus Lite, 2009; NICNAS, 2008; ATSDR, 2002) and CPSC, 1985 (HERO ID 2525801). One value (384 deg C) entered in 3981013, 501984, 1322045, 5155508, 5178600, 5349351, 5926123, 5926154, 5926428, 7324826

Study Citation: OECD Harmonized	DOE, (2016). T Boiling Point	Table 1: Chemicals of concern and assoc	iated chemical inf	ormation. PACs.
Template: HERO ID:	3981013			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		384 - C		
CASRN and Test Material		117-81-7; Di-sec-octylphthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; NR; NR Notes: NR		
Standard Deviation Results	3	not reported		
Results Details		@ 760 mm Hg		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

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

Study Citation:		. State of the science report: Phthalate st -0; 84-69-5; 523-31-9; 5334-09-8;16883	0 1 0	lium-chain phthalate esters: Chemical Abstracts Service Registry Numbers:
OECD Harmonized	Boiling Point	-0, 04-09-3, 323-31-9, 3334-09-8,10063	-03-3, 27213-22-1, 279	707-25-5, 00515-40-2, 71000-07-0.
Template: HERO ID:	3688160			
			EXTRACTION	
Parameter		Data		
Boiling Point		374 C		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; experimental; not specified		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
Standard Deviation Results	3	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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	itv			
	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 Qualit	ty Determi	nation	Medium	

<sup>\*</sup> Related References: cites: [ECHA] European Chemicals Agency. c2007–2014a. Registered substances database. Helsinki (FI): ECHA. [cited 2013 July]. Available from: www.echa.europa.eu/information-on-chemicals/registered-substances

				Socio-economic Analysis (SEAC): Background document to the Opinion on the
OECD Harmonized	Boiling Point	sier proposing restrictions on four phthal	ates: Annexes.	
Template:	Doming I om			
HERO ID:	7325405			
			EXTRACTIO	N .
Parameter		Data		
Boiling Point		385 C		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
Standard Deviation Results	-	not specified		
Results Details		at 1013 hPa		
			EVALUATIO	N
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 Reliabili	ity			
	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 Qualit	v Determi	nation	High	

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Study Citation: OECD Harmonized	ECJRC, (2008) Boiling Point	. European Union risk assessment report	: Bis(2-ethylhexyl)phth	nalate (DEHP).
Template: HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
Boiling Point		ca. 230 C		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and C	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	•	NR; NR; liquid; NR		
Standard Deviation Results	3	Not Reported		
Results Details		at 5 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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	ity			
	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 Qualit	ty Determi	nation	Medium	

<sup>\*</sup> Related References: BASF AG (1994b) Safety data sheet Palatinol AH (12.08.1994); Clayton GD and Clayton FE (1981) Patty's industrial hygiene and toxicology: Volume 2A, 2B, 2C: Toxicology. 3rd ed New York, John Wiley Sons. 2344.

Diethylhexyl Phthalate Boiling Point HERO ID: 1614673 Table: 2 of 2

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

**OECD Harmonized Boiling Point Template: HERO ID:** 1614673 **EXTRACTION Parameter** Data 385 C **Boiling Point** CASRN and Test Material 117-81-7; Not Reported Confidentiality, Type, and Guideline no; not specified; Not Reported Solvent, Reactivity, Storage, and Stability Not Reported; Not Reported; Not Reported Radiolabel, Source, State, and Purity Not Reported; Not Reported; Not Reported Standard Deviation Results Not Reported Results Details at 1013 hPa

			<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 or behaviors.
Domain 2: Test Reliab	oility			
	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

**Study Citation:** 

<sup>\*</sup> Related References: Vercheuren K (1983) Handbook of Environmental Data on Organic Chemicals; Van Nostrand Reinhold, New York; 2nd ed.; Sorbe G (1984) Sicherheitstechnische Kenndaten Chemischer Stoffe; Ecomed, Landsberg, 1984;Loseblattsammlung, Stand 19, Erg-Lfg 10/90

Study Citation: OECD Harmonized	Elsevier, (2021) Boiling Point	). Reaxys: physical-chemical property dat	a for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
Template:	Doming 1 om			
HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		384 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Standard Deviation Results	S	Not Reported		
Results Details		@ 760 torr; 9 values were reported in Re unreported pressures; 6 values were report		reported as 384 C at 760 torr; 2 values were reported in the range of 361 to 397 C at d pressure.
			EVALUATIO	N
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 Reliabil	lity			
	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 Quali	ty Determi	nation	High	

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Study Citation:	toxicological ef	Lundberg, G., Nilsson, C. (1994). Phthalic acid esters used as plastic additives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of toxicological effects. GRA and I(GRA and I):284.				
OECD Harmonized	<b>Boiling Point</b>					
Template:						
HERO ID:	680058					
			EXTRACTION			
Parameter		Data				
Boiling Point		370 C				
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate				
Confidentiality, Type, and	Guideline	none; not specified; not reported				
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR				
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR Notes: DEHP				
Standard Deviation Results	s	Not Reported				
Results Details		at 760 mm Hg; 230°C at 10 mm Hg				
			<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 Reliabil	lity					
Domain 2. Test Renaum	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased		
	Metric 3.	(Method Objectivity)	Medium	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		
	Wiedle II	Remainty// marytean Wemou	Westum	inclusion in a peer-reviewed/recognized database or other secondary source.		
D : 2 01						
Domain 3: Other	36.1.6	51	3.6.12			
	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 Quali	tv Determi	nation	Medium			

<sup>\*</sup> Related References: References HEROID 61587: HSE, 1986. Toxicity review 14. Review of the toxicity of the esters of o-phthalic acid (phthalate esters). Woodward KN, Smith AM. Mariscotti SP and Tomlinson NJ. Health and Safety Executive. HMSO. London.

Diethylhexyl Phthalate Boiling Point HERO ID: 501984 Table: 1 of 1

<b>Study Citation:</b>	Mitsunobu, S., Takahashi, Y. (2006). Study of the water solubility and sorption on particulate matters of phthalate in the presence of humic acid using C-14
	labelled di-(2-ethylhexyl)phthalate. Water, Air, and Soil Pollution 175(1-4):99-115.

**OECD Harmonized Template:** 

**Boiling Point** 

**HERO ID:** 501984

	EXTRACTION
Parameter	Data
Boiling Point	384 C
CASRN and Test Material	117-81-7; Di-(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	None; Not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	14C (433 MBq/mol); Sigma Chemical Co.; NR; >99 percent Notes: diluted by hexane to prepare stock solution
Standard Deviation Results	Not reported
Results Details	Not reported

			<b>EVALUATION</b>	
Domain		Metric	Rating	Comments
Domain 1: Substance	e			
	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 Relia	ability			
	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 wa used.
Domain 3: Other				
	Metric 5:	Databases	High	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: OECD Harmonized	NICNAS, (2008). Existing chemical hazard assessment report: Diethylhexyl phthalate. Boiling Point				
Template: HERO ID:	5178600				
			EXTRACTION		
Parameter		Data			
Boiling Point		384 C			
CASRN and Test Material		117-81-7; diethylhexyl phthalate			
Confidentiality, Type, and	Guideline	no; not specified; not reported			
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR			
Standard Deviation Results	S	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 or other physical/chemical properties or behaviors.	
Domain 2: Test Reliabil	ity				
	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 includes references to the original sources.	
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.	
Overall Qualit	ty Determi	nation	Medium		

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Diethylhexyl Phthalate **Boiling Point** HERO ID: 192177 Table: 1 of 1

**Study Citation: OECD Harmonized**  NIOSH, (2007). NIOSH pocket guide to chemical hazards.

Template:

**Boiling Point** 

HERO ID:	192177			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		727 - F		
CASRN and Test Materia	al	117-81-7; Di(2-ethylhexyl)phthalate		
Confidentiality, Type, and	d Guideline	None; Experimental; None		
Solvent, Reactivity, Stora	ge, and Stability	NR; NR; NR		
Radiolabel, Source, State	, and Purity	NR; NR; NR; NR Notes: NR		
Standard Deviation Resul	lts	NR		
Results Details		at 1 atmosphere		
			EVALUATIO	N
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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
Zomani J. Guioi	Metric 5:	Databases	Medium	The data are from a source that is known but is missing elements required for High

original sources.

designation such as peer-review, public availability, or the inclusion of references to

Rating of this factor is not applicable to this kind of information.

Overall Quality Determination	High
Overan Quanty Determination	nign

Models

Metric 6:

N/A

Study Citation: OECD Harmonized	NIOSH, (2019). Boiling Point	NIOSH pocket guide to chemical hazar	rds: Di-sec octyl p	ohthalate.
Template:	, and the second			
HERO ID:	8407718			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		727 F		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	Not Reported; Not Reported; Not Report	rted; Not Reported	
Radiolabel, Source, State, a	and Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N .
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 Reliabil	itv			
	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				

<sup>\*</sup> Related References: Also reported in HERO ID 5926269

Study Citation: OECD Harmonized	NLM, (2015). F Boiling Point	PubChem: Hazardous Substance Data Ba	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template: HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		384 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL. P. 3-54.

**Overall Quality Determination** 

Study Citation:	NTP, (1982). NT	NTP, (1982). NTP technical report on the carcinogenesis bioassay of di(2-ethylhexyl)phthalate (CAS no. 117-81-7) in F344 rats and B6C3F1 mice (feed		
OECD II	study).			
OECD Harmonized Template:	Boiling Point			
HERO ID:	5160110			
			EXTRACTIO	N .
Parameter		Data		-
Boiling Point		375 - 392 C		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; experimental; not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; NR; NR		
Standard Deviation Results	S	Not Reported		
Results Details		At 744 mm Hg		
			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	The data are consistent with other reported physical/chemical properties.
Domain 2: Test Reliabil	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 data are from a primary source.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

High

Diethylhexyl Phthalate Boiling Point HERO ID: 679847 Table: 1 of 1

Study Citation: OECD Harmonized	NTP, (2000). N Boiling Point	TTP-CERHR expert panel report on di(2-e	thylhexyl) phthalate.	GRA and I(GRA and I):120.
Template: HERO ID:	679847			
			EXTRACTION	
Parameter		Data		
Boiling Point		386 C		
CASRN and Test Material		117-81-7; Di-(2-Ethylhexyl) Phthalate		
Confidentiality, Type, and		no; not specified; Not Reported		
Solvent, Reactivity, Storag	-	Not Reported; Not Reported; Not Report	_	
Radiolabel, Source, State,	•	Not Reported; Not Reported; Not Report	ted; Not Reported	
Standard Deviation Results	S	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 Reliabil	lity			
	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

Study Citation: OECD Harmonized	O'Neil, M. J. (2 Boiling Point	2013). DEHP. 117-81-7. [Bis(2-ethylhexyl	l) ester]. :517.	
Template:				
HERO ID:	5926381			
			EXTRACTIO	N
Parameter		Data		
D. W. D. L.		221.6		
Boiling Point		231 C		
CASRN and Test Material	G : 1 1:	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and		None; Experimental; Not Reported NR: NR: NR: NR		
Solvent, Reactivity, Storag Radiolabel, Source, State,		. , . , . , .		
Standard Deviation Results	•	Not Reported; NR; NR; NR Not Reported		
Results Details	5	@ 5 torr		
Results Details		& J ton		
			EVALUATIO	N
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 Reliabil	lity			
	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				
Domain 3. Omei	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.
	mente o.	17100015	11//1	rading of this factor is not applicable to this kind of information.
Overall Quality Determination			High	

<sup>\*</sup> Related References: O'Neil, M.J. (Ed.). 2013. The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry. p. 517.

HERO ID: 5155636 Table: 1 of 1

Study Citation: OECD Harmonized	OEHHA, (1997). Public health goal for di(2-ethylhexyl)phthalate (DEHP) in drinking water.  Boiling Point			
Template:				
HERO ID:	5155636			
			EXTRACTION	
Parameter		Data		
Boiling Point		230 C		
CASRN and Test Material		117-81-7; Not Reported		
Confidentiality, Type, and	Guideline	Not Reported; Not Reported; Not Reporte	d	
Solvent, Reactivity, Storage	e, and Stability	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Radiolabel, Source, State, a	and Purity	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Standard Deviation Results	S	Not Reported		
Results Details		At 500 mm Hg		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The data was measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with other physical properties.
Domain 2: Test Reliabil	ity			
	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 publicly available secondary source without references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	ty Determi	nation	Medium	

**Study Citation: OECD Harmonized**  Park, C., Sheehan, R. J. (2000). Phthalic acids and other benzenepolycarboxylic acids. :1-45.

**Boiling Point** 

Template:

		EXTRACTIO	N
Parameter	Data		
Boiling Point	231 C		
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate		
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		
Standard Deviation Results	NR		
Results Details	At 666 Pa (5.0 mm Hg)		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome

	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 Reliab	oility			
	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.
<b>Overall Qual</b>	ity Determ	ination	High	

Study Citation: OECD Harmonized	RSC, (2019). C Boiling Point	ChemSpider: Bis-(2-ethylhexyl) phthalate		
Template: HERO ID:	5026260			
HERO ID:	5926269			
Damana 44		Data	EXTRACTION	
Parameter		Data		
D. III D. I.		170 0		
Boiling Point		460 C		
CASRN and Test Material	G : 1 1:	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and Solvent, Reactivity, Storag		None; Experimental; Not Reported NR; NR; NR; NR		
Radiolabel, Source, State,	•	Not Reported; NR; NR; NR		
Standard Deviation Results	•	Not Reported		
Results Details	•	At 760 mm Hg (230 C at 5 mm Hg)		
Results Details		7 tt 700 mm 11g (250 C at 5 mm 11g)		
			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 Reliabil	itv			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
Domain 3. Outer	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	tv Determi	nation	Medium	

<sup>\*</sup> Related References: Alfa Aesar

Diethylhexyl Phthalate Boiling Point HERO ID: 5926269 Table: 2 of 2

Study Citation: OECD Harmonized	RSC, (2019). ChemSpider: Bis-(2-ethylhexyl) phthalate. Boiling Point
Template:	
HERO ID:	5926269

Parameter	EXTRACTION Data
Boiling Point	386 C
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR
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 Reliab	oility			
	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**

<sup>\*</sup> Related References: LabNetwork

**Study Citation: OECD Harmonized**  Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.

**Boiling Point** 

Template:

		EXTRACTIO	N
Parameter	Data		
Boiling Point	384		
CASRN and Test Material	Not Reported; Di-ethylhexyl phthalate		
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		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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 5. Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
	Models	1 N/ A	raing of this factor is not applicable to this kind of information.

Diethylhexyl Phthalate **Boiling Point** HERO ID: 5349351 Table: 1 of 1

**Study Citation: OECD Harmonized**  Rumble, J. R., (Ed.) (2018). Bis(2-ethylhexyl) phthalate. :3-6.

**Boiling Point** 

Template: HERO ID:

5349351

		EXTRACTIO	N
Parameter	Data		
Boiling Point	384 C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage, and Stabili	y NR; NR; NR		
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATIO	N
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.

High

Study Citation: OECD Harmonized	U.S. EPA, (2019 Boiling Point	9). Comptox Chemicals Dashboard: Di(2-o	ethylhexyl) phtl	nalate (CASRN 117-81-7).
Template:	5026154			
HERO ID:	5926154			
			EXTRACTIO	N
Parameter		Data		
Boiling Point		386 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storag		NR: NR: NR		
Radiolabel, Source, State,	•	Not Reported; NR; NR; NR		
Standard Deviation Results	•	Not Reported		
Results Details		Not Reported		
		•		
			EVALUATIO	N
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 Reliabil	litv			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
zomani s. omei	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.

<sup>\*</sup> Related References: NIOSH

Diethylhexyl Phthalate Boiling Point HERO ID: 5926154 Table: 2 of 4

Study Citation:

U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

OECD Harmonized

**Boiling Point** 

Template: HERO ID:

5926154

EXTRACTION			
Parameter	Data		
Boiling Point	384 C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATIO	N
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.
<b>Overall Quality Determi</b>	nation	High	

<sup>\*</sup> Related References: PhysProp

Diethylhexyl Phthalate **Boiling Point** HERO ID: 5926154 Table: 3 of 4

**Study Citation:** 

U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

OECD Harmonized Template:

**Boiling Point** 

Template:				
HERO ID:	5926154			
			EXTRACTION	
Parameter		Data		
Boiling Point		230 C		
CASRN and Test Mate	erial	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, a	and Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Sto	orage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, Sta	ate, and Purity	Not Reported; NR; NR; NR		
Standard Deviation Re	sults	Not Reported		
Results Details		Not Reported		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substanc	e			
	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 Reli	ability			
	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**

<sup>\*</sup> Related References: Alfa Aesar

Diethylhexyl Phthalate Boiling Point HERO ID: 5926154 Table: 4 of 4

**Study Citation:** 

U.S. EPA, (2019). Comptox Chemicals Dashboard: Di(2-ethylhexyl) phthalate (CASRN 117-81-7).

OECD Harmonized

**Boiling Point** 

Template:

**HERO ID:** 5926154

EXTRACTION			
Parameter	Data		
Boiling Point	230 C		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
	·		
_	FVALUATION		

			<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 Reliab	ility			
	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**

<sup>\*</sup> Related References: Alfa Aesar

<b>Study Citation:</b>	Cao, X. L. (2010). Phthalate esters in foods: Sources, occurrence, and analytical methods. Comprehensive Reviews in Food Science and Food Safety 9(1):21-43.				
OECD Harmonized	Density				
Template:	ř				
HERO ID:	1322045				
			EXTRACTION		
Parameter		Data			
Density		0.985 g/mL			
CASRN and Test Material		117-81-7; di-2-ethylhexyl phthalate			
Confidentiality, Type, and C	Guideline	no; not specified; Not Reported			
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, a	and Purity	NR; NR; NR; NR			
Density Type		Not Reported			
System		Not Reported			
Temperature		Not Reported			
Standard Deviation Results		Not Reported			
Results Details		Not Reported			
			EVALUATION		
Domain		Metric	Rating	Comments	
Domain 1: Substance			<u> </u>		
	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 Reliabili	ity				
Domain 2. Test Kelldull	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased	
	mulic J.	(Method Objectivity)	Manuali	toward a particular 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 secondary source.	
Damain 2. Othan					
Domain 3: Other	Metric 5:	Databases	Medium	The data are from a peer-reviewed secondary source without inclusion of references to the original sources.	
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.	
Overall Qualit	tv Determina	tion	Medium		

Study Citation: OECD Harmonized	DOE, (2016). T Density	Table 1: Chemicals of concern and associa	ated chemical inf	ormation. PACs.
Template:	2 charty			
HERO ID:	3981013			
			EXTRACTIO	N
Parameter		Data		
Density		0.981 -		
CASRN and Test Material		117-81-7; Di-sec-octylphthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage		NR; NR; NR; NR		
Radiolabel, Source, State,		NR; NR; NR; NR Notes: NR		
Density Type		specific gravity (density of a substance d	livided by the densi	ty of water)
System		not specified		
Temperature		25°C		
Standard Deviation Results	S	not reported		
Results Details		not reported		
			EVALUATIO	<b>N</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 Reliabil	lity			
	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 Quali	ty Determi	nation	High	

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

ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the

**Study Citation:** 

OECD Harmonized		sier proposing restrictions on four phtha		socio-economic Anarysis (SEAC). Background document to the Opinion on the
Femplate: HERO ID:	7325405			
			EXTRACTIO	N
Parameter		Data		
Density		0.98 g/cm3		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
Density Type		relative density		
System		not specified		
Temperature		20°C		
Standard Deviation Results	3	not specified		
Results Details		not specified		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	tv Determi	nation	High	

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Study Citation: OECD Harmonized	ECJRC, (2008) Density	. European Union risk assessment report: F	Bis(2-ethylhexyl)phth	nalate (DEHP).
Template:	Density			
HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
Donoitre		0.984 g/cm3		
Density CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and		Not Reported; Not Reported; Not Reported	d	
Solvent, Reactivity, Storag		NR; NR; NR	u	
Radiolabel, Source, State,	-	NR; NR; liquid; NR		
Density Type	and rarry	density		
System		Not Reported		
Temperature		20°C		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
ъ.			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance	M . 1	D	11' 1	
	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 Reliabil	lity			
	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 O	4v. Do4s	nation	Mad:	
Overall Quali	ty Determi	แลนงแ	Medium	

<sup>\*</sup> Related References: (OECD 1979, in Rippen 2005); Rippen (2005) Handbuch Umweltchemikalien, 13.Erg.Lfg.1/92. Latest update no 72 (2005)

Diethylhexyl Phthalate Density HERO ID: 1614673 Table: 2 of 3

Study Citation:	ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).
Study Citation.	ECIKC, (2006). European Union fisk assessment report. Dis(2-eurymexyr)phtharate (DETIF).

**OECD Harmonized Template:** 

HFRO ID: 1614673

Density

		EXTRACTION	
Parameter	Data		
Density	0.986 g/cm3		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
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	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)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.

Domain 2: Test Reliab	3			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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

 $<sup>^{\</sup>star} \ Related \ References: (IARC\ 1982, in\ HSDB\ 2005); HSDB\ (Hazardous\ Substances\ Data\ Bank)\ search\ on\ CAS\ no\ 117-81-7, done\ 2006-02-28; http://toxnet.nlm.nih.gov$ 

Diethylhexyl Phthalate Density HERO ID: 1614673 Table: 3 of 3

Study Citation: ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized Density

Template:
HERO ID: 1614673

	EXTRACTION			
Parameter	Data			
Density	0.980 - 0.985 g/ml			
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate			
Confidentiality, Type, and Guideline	no; not specified; Not Reported			
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR			
Density Type	density			
System	Not Reported			
Temperature	not reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
		EVALUATION		
Domain	Metric	Pating	Comments	

			<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 of other physical/chemical properties or behaviors.
Domain 2: Test Relia	bility			
	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

<sup>\*</sup> Related References: Furtmann K (1996) Phalates in the aquatic environment. English translation of the ECPI./CEFIC report 6/93.

**Study Citation:** Hinds, W., Macher, J., First, M. (1982). Size distributions of test aerosols produced from materials other than DOP. Journal of Environmental Sciences

25(3):20-21.

**OECD Harmonized** 

Density

Template:

EXTRACTION			
Parameter	Data		
Density	= 0.983 NA		
CASRN and Test Material	Not Reported; di(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; Hatco Chemical Corporation, Fords, NJ. FDA approval for use in polymers that contact food.; NR; NR Notes: DEHP		
Density Type	specific gravity		
System	not reported		
Temperature	not reported		
Standard Deviation Results	not reported		
Results Details	not reported		

			<b>EVALUATIO</b>	N
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 Reliab	oility			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 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	High	Rating of this factor is not applicable to this kind of information.

Study Citation: OECD Harmonized	NICNAS, (2008 Density	8). Existing chemical hazard assessmen	t report: Diethylhexyl pl	hthalate.
Template:	5170600			
HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
Density		0.984 g/cm3		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and	Guideline	no; not specified; not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	-	NR; NR; liquid; NR		
Density Type	·	density		
System		Not Reported		
Temperature		20°C		
Standard Deviation Results	s	Not Reported		
Results Details		reported as 984 kg/m3		
			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 Reliabil	lity			
	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				
Zonian J. Oute	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

<b>Study Citation:</b>
<b>OECD Harmonized</b>

NIOSH, (2007). NIOSH pocket guide to chemical hazards.

**Template:** 

Density

		EXTRACTION	
Parameter	Data		
Density	0.99 - Not reported		
CASRN and Test Material	117-81-7; DEHP		
Confidentiality, Type, and Guideline	None; Experimental; NR		
Solvent, Reactivity, Storage, and Stability	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

Study Citation: OECD Harmonized	NIOSH, (1988) Density	. Occupational safety and health guidelin	e for di-2-ethylh	exyl phthalate (DEHP) potential human carcinogen.
Template: HERO ID:	8435182			
			EXTRACTIO	N .
Parameter		Data		
Density		= 0.9861		
CASRN and Test Material		117-81-7; Not Reported		
Confidentiality, Type, and	Guideline	none; Not Reported; not reported		
Solvent, Reactivity, Storag		Not Reported; Not Reported; Not Report	ted; Not Reported	
Radiolabel, Source, State,		Not Reported; Not Reported; Not Report	_	
Density Type	·	specific gravity	-	
System		not reported		
Temperature		not reported		
Standard Deviation Result	S	not reported		
Results Details		water = 1		
			EVALUATIO	N
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 Reliabi	lity			
	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				
2 cam 3. Gaici	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.
<b>Overall Quali</b>	ty Determi	nation	High	

<sup>\*</sup> Related References: Also entered under HERO ID 5926428

Diethylhexyl Phthalate Density HERO ID: 8435182 Table: 2 of 2

<b>Study Citation:</b>	NIOSH, (1988). Occupational safety and health guideline for di-2-ethylhexyl phthalate (DEHP) potential human carcinogen.
<b>OECD Harmonized</b>	Density
<b>Template:</b>	
HERO ID:	8435182
	EXTRACTION
Parameter	Data

Density = 16
CASRN and Test Material 117-81-7; Not Reported

Confidentiality, Type, and Guideline none; Not Reported; not reported

Solvent, Reactivity, Storage, and Stability
Radiolabel, Source, State, and Purity
Not Reported; Not Reported; Not Reported; Not Reported; Not Reported; Not Reported; Not Reported

Density Type vapor gravity
System not reported
Temperature not reported
Standard Deviation Results not reported
Results Details air = 1

			EVALUATIO	N
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 Relial	bility			
	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 Qual	lity Determi	ination	High	

<sup>\*</sup> Related References: Also entered under HERO ID 5926123

Study Citation:	NTP, (1982). NTP technical report on the carcinogenesis bioassay of di(2-ethylhexyl)phthalate (CAS no. 117-81-7) in F344 rats and B6C3F1 mice (feed			
OECD Harmonized	study). Density			
Template:	Delisity			
HERO ID:	5160110			
——————————————————————————————————————	3100110			
<b>D</b> 4		<b>D</b> (	EXTRACTION	
Parameter		Data		
Density		0.9765 g/mL		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline		no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability		NR; NR; NR; NR		
Radiolabel, Source, State, and Purity		NR; NR; NR; NR		
	Density Type density			
System		Not Reported		
Temperature		24.5°C		
Standard Deviation Results		$\pm 0.00055$		
Results Details		Not Reported		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance		Wictire	Rating	Comments
Domain 1. Substance	Metric 1:	Representativeness	High	The 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.
	Wietife 2.	прогоришенезз	1771	Raung of this factor is not applicable to this kind of information.
Domain 2: Test Reliabil	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
2 chian 3. Guioi	Metric 5:	Databases	Medium	The data are from a primary source with limited experimental details provided.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	ty Determi	nation	Medium	

Study Citation:		TTP-CERHR expert panel report on di(2-et	hylhexyl) phthalate.	GRA and I(GRA and I):120.
OECD Harmonized	Density			
Template: HERO ID:	679847			
HERO ID:	0/984/			
<b>T</b>		<b>.</b>	EXTRACTION	
Parameter		Data		
Density		0.986		
CASRN and Test Material	1	117-81-7; Di-(2-Ethylhexyl) Phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag	ge, and Stability	Not Reported; Not Reported; Not Reporte	ed; Not Reported	
Radiolabel, Source, State,	and Purity	Not Reported; Not Reported; Not Reporte	ed; Not Reported	
Density Type		specific gravity		
System		Not Reported		
Temperature		Not Reported		
Standard Deviation Result	ts	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
				(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 Reliabi	lity			
20114111 21 1000 11011401	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	weare 3.	(Method Objectivity)	Wicaram	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
	Metric 6:	Models	N/A	use OR includes references to the original sources.
	MEHIC U.	Models	IN/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	
Over all Quali	ty Determin	เมลเเปน	MICHIUIII	

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

<b>Study Citation:</b>
OECD Harmonized

OEHHA, (1997). Public health goal for di(2-ethylhexyl)phthalate (DEHP) in drinking water.

Template:

HERO ID: 5155636

Density

$\mathbf{F}\mathbf{X}'$	$\Gamma \mathbf{R} \Delta$	$\mathbf{C}$	rt <i>a</i>	)N

Parameter	Data
Density	0.9861
CASRN and Test Material	117-81-7; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported
Density Type	specific gravity
System	Not Reported
Temperature	20 C
Standard Deviation Results	Not Reported
Results Details	Specific gravity: 0.9861 at 20°C

			<b>EVALUATION</b>	
Domain		Metric	Rating	Comments
Domain 1: Substance	2			
	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 Relia	ability			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 is from a publicly available secondary source without 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**

Study Citation:	Park, C., Sheehan, R. J. (2000). Phthalic acids and other benzenepolycarboxylic acids. :1-45.
OECD Harmonized	Density

Template:			
HERO ID: 679796			
		EXTRACTIO	N
Parameter	Data		
Density	0.986		
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	None; experimental; Not reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR		
Density Type	density reported as specific gravity		
System	NR		
Temperature	20 deg C		
Standard Deviation Results	NR		
Results Details	Not Reported		
		EVALUATIO	N .
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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

	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 Relia	bility			
	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.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qua	lity Determ	ination	High	

Study Citation: OECD Harmonized	Elsevier, (2021) Density	). Reaxys: physical-chemical property data	for Di(2-ethyll	hexyl) phthalate. CAS Registry Number: 117-81-7	
Template: HERO ID:	5926428				
			EXTRACTIO	N	
Parameter		Data		• •	
Density		0.98 - 0.9861 g/cm3			
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate			
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported			
Solvent, Reactivity, Storage		NR; NR; NR			
Radiolabel, Source, State, a	•	Not Reported; NR; NR; NR			
Temperature	·	20-25°C			
Standard Deviation Results	<b>;</b>	Not Reported			
Results Details		20-25°C; 24 values were reported in Reaxys; 10 values were reported in the range of 0.98 to 0.9861 at 20-25°C; 14 values were measured at non-standard temperatures.			
			EVALUATIO	N	
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 Reliabil	ity				
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased	
		(Method Objectivity)		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 Qualit	ty Determi	nation	High		

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Study Citation:	Mylona, S. K., Assael, M. J., Antoniadis, K. D.,	Polymatidou, S. K., Karagiannidis, L. (2013).	Measurements of the Viscosity of Bis(2-ethylhexyl)

Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa. Journal of Chemical and Engineering Data 58(10):2805-2808.

**OECD Harmonized Template:** 

Density

**HERO ID:** 5611337

EXTR	ACTION

Parameter	Data
Density	0.9801 g/cm3
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl) phthalate (DEHP)
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	None; NR; NR; NR
Radiolabel, Source, State, and Purity	No; Sigma Aldrich; NR; 0.995 (initial mole fraction purity) Notes: no additional purification
Temperature	298.29 K
Standard Deviation Results	0.0001
Results Details	Reported as 980.1 kg/m3

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 Reliab	ility			
	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 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: OECD Harmonized	NLM, (2015). PubChem: Hazardous Substance Data Bank: Bis(2-ethylhexyl) phthalate, 117-81-7.  Density			
Template:	Bensity			
HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
<b>5</b>		0.004		
Density		0.981 g/cm3		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C		None; Experimental; Not Reported		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature		25°C		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	itv			
	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.
Damain 2. Other				
Domain 3: Other	Metric 5:	Databases	Uiah	Date is from a multiply available man navioused database that manyides a few
			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 Qualit	y Determi	nation	High	

<sup>\*</sup> Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL. P. 3-54.

<b>Study Citation:</b>
<b>OECD Harmonized</b>

O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517.

Template:

**HERO ID:** 5926381

Density

DVD	ACTION
P.AIK	AC.IICIN

Parameter	Data
Density	0.986 g/cm3
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR
Temperature	20°C
Standard Deviation Results	Not Reported
Results Details	at 20°C relative to water at 20°C

			EVALUATIO	N
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 Reliab	ility			
	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 Quali	ity Determ	ination	High	

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Study Citation:		ChemSpider: Bis-(2-ethylhexyl) phthalate.	•	
OECD Harmonized	Density			
Template:				
HERO ID:	5926269			
			EXTRACTION	
Parameter		Data		
Density		0.985 g/cm3		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		Not Reported		
Standard Deviation Results	S	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 Reliabil	ity			
	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.

<sup>\*</sup> Related References: Alfa Aesar

Study Citation: OECD Harmonized	Rumble, J. R., ( Density	(Ed.) (2018). Bis(2-ethylhexyl) phthalate.	. :3-6.	
Template:	2 011011			
HERO ID:	5349351			
			EXTRACTIO	N
Parameter		Data		
Density		0.981 g/cm3		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature		25°C		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

Study Citation: OECD Harmonized	NLM, (2015). Density	PubChem: Hazardous Substance Data Ba	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template:				
HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
Density		16.0		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not specified		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
System		Not reported		
Temperature		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		air = 1		
			EVALUATIO	N
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 Reliabil	lity			
	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				
Domain J. Onici	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 Quali	ty Determi	nation	High	

<sup>\*</sup> Related References: Clayton, G. D., Clayton, F. E. (Eds). Patty's Industrial Hygiene and Toxicology: Volume 2A, 2B, 2C: Toxicology. 3rd Ed. New York: John Wiley Sons. P. 2345.

Diethylhexyl Phthalate Particle Size HERO ID: 9429030 Table: 1 of 1

**Study Citation:** Hinds, W., Macher, J., First, M. (1982). Size distributions of test aerosols produced from materials other than DOP. Journal of Environmental Sciences

25(3):20-21. Particle Size

**OECD Harmonized** 

Template:

**HERO ID:** 9429030

EXTR	AC	ΓΙΟΝ	

	EXTRACTION
Parameter	Data
Aerodynamic Value	0.24 μm (count median diameter) - 0.66 μm (mass median diameter)
CASRN and Test Material	Not Reported; di(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	none; Experimental; Non-guideline; size distribution of aerosols
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; Hatco Chemical Corporation, Fords, NJ. FDA approval for use in polymers that contact food.; NR; NR Notes: DEHP
Method Type, Particle, Distribution, and Particle	other; other; counted distribution; Not Reported
Size	

Size Geometric Standard Deviation 1.53 -Mean Not Reported Standard Deviation Mean Not Reported

Remarks particle size distribution of aerosols produced at 140 kPa

Page Number Not Reported Not Reported Passage Not Reported Mean Size Passage Distribution Not Reported Additional Passage Details Not Reported

			EVALUATIO	N
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 Reliab	ility			
	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 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.

### Continued on next page ...

Diethylhexyl Phthalate Particle Size HERO ID: 9429030 Table: 1 of 1

### ... continued from previous page

Study Citation: Hinds, W., Macher, J., First, M. (1982). Size distributions of test aerosols produced from materials other than DOP. Journal of Environmental Sciences

25(3):20-21.

OECD Harmonized Template:

Particle Size

		EVALUATION		
Domain	Metric	Rating	Comments	
Overall Quality Determination		High		

Study Citation:	California Office of Environmental Health Hazard Assessment (OEHHA) (2011). Appendix B: Chemical-specific summaries of the information used to derive unit risk and cancer potency values.				
OECD Harmonized	Vapor Pressure				
Template:	•				
HERO ID:	5155632				
			EXTRACTIO	N	
Parameter		Data			
Vapor Pressure		1.32 mm Hg			
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and		none; not specified; Not reported			
Solvent, Reactivity, Storag		NR; NR; NR			
Radiolabel, Source, State, and Purity		NR; NR; NR Notes: NR			
Temperature		200 deg C			
System		NR			
Standard Deviation Results	s	NR			
Results Details		Not Reported			
			EVALUATIO	N.	
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 Reliabil	lity				
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased	
		(Method Objectivity)		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					
Zomani J. Oulei	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 Quali	tv Determi	ination	High		

<sup>\*</sup> Related References: Citing HSDB, 1994.

Study Citation:		Phthalate esters in foods: Sources, occur	rrence, and anal	ytical methods. Comprehensive Reviews in Food Science and Food Safety
OECD Harmonized	9(1):21-43. Vapor Pressure			
Template:	•			
HERO ID:	1322045			
		EX	TRACTION	
Parameter		Data		
Vapor Pressure		2.52x10-5 Pa		
CASRN and Test Material		117-81-7; di-2-ethylhexyl phthalate		
	Suidalina	Not Reported; Not Reported; Not Reported		
Confidentiality, Type, and Guideline Solvent, Reactivity, Storage, and Stability		NR; NR; NR		
Radiolabel, Source, State, and Purity		NR; NR; NR; NR		
Temperature	ind I drity	25°C		
System		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
results Details		The Teported		
		EV	ALUATION	
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 Reliabili	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		toward a particular 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 secondary source.

## Overall Quality Determination

Databases

Models

Metric 5:

Metric 6:

Domain 3: Other

### Medium

N/A

Medium

the original sources.

The data are from a peer-reviewed secondary source without inclusion of references to

Rating of this factor is not applicable to this kind of information.

<b>Study Citation:</b>	Cousins, A. P., Remberger, M., Kaj, L., Ekheden, Y., Dusan, B., Brorstroem-Lunden, E. (2007). Results from the Swedish National Screening Programme 2006. Subreport 1: Phthalates. GRA and I(GRA and I):39.			
OECD Harmonized	Vapor Pressure	211 2 111111111111111111111111111111111	•	
Template: HERO ID:	675060			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		3.4X10-2 Pa		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and C	Guideline	none; not specified; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	None; NR; NR; NR		
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 substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliabili	ity			
	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 Qualit	v Determi	nation	Medium	

<sup>\*</sup> Related References: Cousins, I. T., Mackay, D., Parkerton, T. F.. Physical-chemical properties and evaluative fate modelling of phthalate esters. The Handbook of Environmental Chemistry, vol 3Q. 2003. 3:57-84.

Study Citation: OECD Harmonized	CPSC, (2015). E Vapor Pressure	Exposure assessment: Composition, prod	uction, and use of phth	nalates.
Template: HERO ID:	5155508			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		8.3x10-6 - 8.6x10-4 Pa		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and C	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	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 for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with other physical properties.
Domain 2: Test Reliabil	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	(Method Objectivity) 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 is from a secondary source without peer-review.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	ty Determin	nation	Medium	

<sup>\*</sup> Related References: Health Canada, 1994. Bis(2-ethylhexyl) Phthalate. Priority Substances List Assessment Report. Canadian Environmental Protection Act. Health Canada.

Diethylhexyl Phthalate Vapor Pressure HERO ID: 5155508 Table: 2 of 2

Study Citation:CPSC, (2015). Exposure assessment: Composition, production, and use of phthalates.OECD HarmonizedVapor Pressure

Template: HERO ID:	5155508			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		1.33x10-5 - 1.89x10-5 Pa		
CASRN and Test Mater	ial	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, ar	nd Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Stor		NR; NR; NR		
Radiolabel, Source, Stat	-	NR; NR; NR; NR		
Temperature	·	Not Reported		
System		Not Reported		
Standard Deviation Resi	ults	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 other physical properties.
Domain 2: Test Relia	bility			
	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 waused.
Domain 3: Other				
	Metric 5:	Databases	Medium	The data is from a secondary source without peer-review.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

# **Overall Quality Determination**

# Medium

<sup>\*</sup> Related References: CPSC (U.S. Consumer Product Safety Commission). 2010. Review of Exposure Data and Assessments for Selected Dialkyl Ortho-Phthalates. Consumer Product Safety Commission, CPSC-D-06-0006, Bethesda, MD.

Study Citation: OECD Harmonized Template:	DOE, (2016). T Vapor Pressure	Table 1: Chemicals of concern and assoc	iated chemical inf	ormation. PACs.
HERO ID:	3981013			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		7.5x10-3 - mm Hg		
CASRN and Test Material		117-81-7; Di-sec-octylphthalate		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; NR; NR Notes: NR		
Temperature		122°C		
System		not reported		
Standard Deviation Results	3	not reported		
Results Details		not reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

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

Diethylhexyl Phthalate Vapor Pressure HERO ID: 3688160 Table: 1 of 1

**Study Citation:** EC/HC, (2015). State of the science report: Phthalate substance grouping: Medium-chain phthalate esters: Chemical Abstracts Service Registry Numbers: 84-61-7; 84-64-0; 84-69-5; 523-31-9; 5334-09-8;16883-83-3; 27215-22-1; 27987-25-3; 68515-40-2; 71888-89-6. **OECD Harmonized** Vapor Pressure **Template: HERO ID:** 3688160 **EXTRACTION Parameter** Data Vapor Pressure 3.0×10-5 Pa CASRN and Test Material 117-81-7; di-ethylhexyl phthalate Confidentiality, Type, and Guideline no; experimental; not specified Solvent, Reactivity, Storage, and Stability NR; NR; NR; NR Radiolabel, Source, State, and Purity NR; NR; liquid; 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 N/A Rating of this factor is not applicable to this kind of information. Domain 2: Test Reliability Metric 3: Reliability/Unbiased Medium There is no indication that the methodology for producing the information was biased (Method Objectivity) towards a particular product or outcome. Reliability/Analytical Method Metric 4: 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

<sup>\*</sup> Related References: cites: [ECHA] European Chemicals Agency. c2007–2014a. Registered substances database. Helsinki (FI): ECHA. [cited 2013 July]. Available from: www.echa.europa.eu/information-on-chemicals/registered-substances

Diethylhexyl Phthalate Vapor Pressure HERO ID: 679967 Table: 1 of 1

Study Citation: OECD Harmonized	ECETOC, (198 Vapor Pressure	5). An assessment of the occurrence and e	ffects of dialkyl orth	o-phthalates in the environment.
Template: HERO ID:	679967			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		3.4E-7 mm Hg		
CASRN and Test Material		Not Reported; Di-2-ethylhexyl phthalate		
Confidentiality, Type, and	Guideline	No; experimental; Not Reported		
Solvent, Reactivity, Storag	e, and Stability	Not Reported; Not Reported; Not Reporte	ed; Not Reported	
Radiolabel, Source, State,	and Purity	Not Reported; Not Reported; Not Reporte	ed; Not Reported	
Temperature		25 deg C		
System		Not Reported		
Standard Deviation Results	8	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 feature.
Domain 2: Test Reliabil	lity			
	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Citing Frissell, W.J. (1956). Volatility of vinyl plastics. Ind. Eng. Chem., 48, 1096.

Study Citation:	ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion of Annex XV dossier proposing restrictions on four phthalates: Annexes.				
OECD Harmonized	Vapor Pressure				
Template:					
HERO ID:	7325405				
			EXTRACTIO	N	
Parameter		Data			
Vapor Pressure		0.000034 Pa			
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and G	duideline	none; not specified; not specified			
Solvent, Reactivity, Storage	, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, as	nd Purity	NR; NR; liquid; NR			
Temperature		20°C			
System		not specified			
Standard Deviation Results		not specified			
Results Details		not specified			
			EVALUATIO	N	
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 Reliabili	ty				
	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 Qualit	v Determi	nation	High		

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Diethylhexyl Phthalate Vapor Pressure HERO ID: 1614673 Table: 1 of 2

Study Citation: OECD Harmonized	ECJRC, (2008) Vapor Pressure	. European Union risk assessment report:	Bis(2-ethylhexyl)phth	nalate (DEHP).
Template: HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		0.00000004 - 0.0014 Pa		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR		
Temperature		Not Reported		
System		Not Reported		
Standard Deviation Results	S	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 Reliabil	lity			
	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Staples CA, Peterson DR, Parkerton TF and Adams WJ (1997). The Environmental Fate of Phthalate Esters. A Literature Review. Chemosphere 35(4), 667-749.

Vapor Pressure Diethylhexyl Phthalate HERO ID: 1614673 Table: 2 of 2

**Study Citation:** ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP). Vapor Pressure

**OECD Harmonized** 

**HERO ID:** 

**Template:** 

1614673

EXTRACTION			
Parameter	Data		
Vapor Pressure	0.000034 Pa		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; extrapolated; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; 99.5%		
Temperature	20°C		
System	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	measured vapor pressure of 0.000023, 0.0057, 0.011, 0.039, 0.10, 0.29, 0.76, 1.9, 287, 389, 511 Pa at 15, 60, 70, 80, 90, 100, 110, 120, 203, 210, 216°C, respectively.		

			<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 Relia	bility			
	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

<sup>\*</sup> Related References: Hüls AG (1997) Dampfdruck von Di-2-Ethylphtalat (DOP). Unpublished report (15.01.1997).

Diethylhexyl Phthalate Vapor Pressure HERO ID: 5926428 Table: 1 of 1

Study Citation: OECD Harmonized	Elsevier, (2021) Vapor Pressure	). Reaxys: physical-chemical property data	for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
Template: HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		4.05041E-8 - 1.4E-4 mm Hg		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		25°C		
System		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		21 data points were reported in Reaxys; 4 the range, measured at non-standard or un		orted at 4.05041E-8 to 1.4E-4 torr at standard temperature; 17 data points were outside tures.
			EVALUATIO	N
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 Reliabil	lity			
	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 Quali	tv Determi	nation	High	

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Study Citation: Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of

commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662.

OECD Harmonized

Vapor Pressure

**Template:** 

**HERO ID:** 679985

EXTRACTION				
Parameter	Data			
Vapor Pressure	8.6E-4 Pa			
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and Guideline	None; Experimental; Not reported			
Solvent, Reactivity, Storage, and Stability	NR; NR; If more than one manufacturer produced the individual PAE, the PAE product provided to us was an equal-proportion blend.			
Radiolabel, Source, State, and Purity	NR; Provided to Chemical Manufacturers' Association by U.S. manufacturers.; NR; >99% purity Notes: single isomer			
Temperature	25°C			
System	Measured by the gas saturation method: U.S. Environmental Protection Agency. 1980. Environmental test standards: Proposed rules. Vapor pressure. Fed. Reg. 45:77345-77350.			
Standard Deviation Results	6.6E-4			
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 other physical/chemical properties.			
Domain 2: Test Reliab	oility						
	Metric 3:	Reliability/Unbiased	High	Peer-reviewed journal article with results compared to other literature values.			
		(Method Objectivity)					
	Metric 4:	Reliability/Analytical Method	High	Standard method used with experimental details reported.			
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 Qual	ity Determ	ination	High				

Study Citation: Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology

83(2):168-173.

OECD Harmonized

Vapor Pressure

**Template:** 

**HERO ID:** 807140

EVTD	ACTION	I.

Parameter	Data
Vapor Pressure	6.24X10-5 Pa
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	none; QSAR; Quantitative Structure-Property relationship model for estimation of solubility in air
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR Notes: DEHP
Temperature	Not Reported
System	Predictive model developed using gas law: $S(A) = P(\text{liquid substance})/RT$ where $R = \text{gas constant}$ (8.314 Pa m-3 mol-1 K-1) and $T = \text{absolute temperature}$ (298K); Log $S(A) = -0.2324 - 0.3215$ (Lu)
Standard Deviation Results	Not Reported
Results Details	Log S(A): $n = 15$ ; correlation coefficient (R) = 0.9461; standard error (SE) = 0.27; leave-one-out cross validation correlation coefficient (Rsv) = 0.9218; corresponding standard errors (scv) = 0.34

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 Reliab	ility					
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.		
		(Method Objectivity)				
	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	High	The model had a defined, unambiguous endpoint AND the model performance was known and $r2 > 0.7$ , $q2 > 0.5$ , and $SE < 0.3$ (ECHA, 2016).		

# Overall Quality Determination High

Study Citation:			ed as plastic add	litives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of
OECD Harmonized	toxicological ef Vapor Pressure	ffects. GRA and I(GRA and I):284.		
Template:	vapor i ressure			
HERO ID:	680058			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		3.4X10-7 mm Hg		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR Notes: DEHP		
Temperature		23°C		
System		Not Reported		
Standard Deviation Result	S	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabi	lity			
	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 Quali	tv Determi	nation	Low	

<sup>\*</sup> Related References: References HERO ID 679967 ECETOC, 1985. An assessment of the occurrence and effects of dialkyl orthophthalates in the environment. Technical report No. 19, Brussels.

<b>Study Citation:</b>	Mitsunobu, S., Takahashi, Y. (2006). Study of the water solubility and sorption on particulate matters of phthalate in the presence of humic acid using C-14 labelled di-(2-ethylhexyl)phthalate. Water, Air, and Soil Pollution 175(1-4):99-115.						
OECD Harmonized Template:	Vapor Pressure	ary meny rypranatate. Water, 1 m, and 50n	1 011411011 173(1	110.			
HERO ID:	501984						
			EXTRACTIO	N			
Parameter		Data					
Vapor Pressure		3.4e-7 - 6.4e-6 mm Hg					
CASRN and Test Material		117-81-7; Di-(2-ethylhexyl) phthalate					
Confidentiality, Type, and C	Guideline	None; Not specified; Not reported					
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR					
Radiolabel, Source, State, a	and Purity	14C (433 MBq/mol); Sigma Chemical C	Co.; NR; >99 perce	nt Notes: diluted by hexane to prepare stock solution			
Temperature		23°C					
System		Reported literature value (Tyler et al., 19	98)				
Standard Deviation Results		Not reported					
Results Details		Not reported					
			EVALUATIO	N			
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 Reliabil	ity						
	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.			
<b>Overall Qualit</b>	v Determi	nation	High				

<sup>\*</sup> Related References: Tyler, C.R., et al., 1998. Crit Rev Toxicol 28, 319-61

Study Citation: OECD Harmonized Template:	NICNAS, (2008 Vapor Pressure	8). Existing chemical hazard assessmen	nt report: Diethylhexyl p	hthalate.
HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
Vapor Pressure		1.33X10-8 kPa		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and		no; not specified; not reported		
Solvent, Reactivity, Storage		NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
Temperature		25°C		
System		not reported		
Standard Deviation Results	3	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 Reliabil	ity			
	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	tv Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Vapor Pressure Diethylhexyl Phthalate HERO ID: 192177 Table: 1 of 1

**Study Citation:** 

NIOSH, (2007). NIOSH pocket guide to chemical hazards.

OECD Harmonized

Vapor Pressure

Template:

		EXTRACTIO	N
Parameter	Data		
Vapor Pressure	< 0.01 - mm Hg		
CASRN and Test Material	117-81-7; Di(2-ethylhexyl)phth	nalate	
Confidentiality, Type, and Guideline			
Solvent, Reactivity, Storage, and Sta	bility 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		
		<b>EVALUATIO</b>	N
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.
Domain 2: Test Reliability			
Metric	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		od 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	e 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	e 6: Models	N/A	Rating of this factor is not applicable to this kind of information.

Study Citation:	
OFCD Harmonize	•

NIOSH, (2019). NIOSH pocket guide to chemical hazards: Di-sec octyl phthalate.

**OECD Harmonized** 

Vapor Pressure

			DVID ACIDA	NT .
Parameter		Data	EXTRACTIO	N
1 at affecter		Data		
Vapor Pressure		< 0.01 mm Hg		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and Gui	deline	none; not specified; Not Reported		
Solvent, Reactivity, Storage, an		Not Reported; Not Reported; Not Report	ted; Not Reported	
Radiolabel, Source, State, and	Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Temperature		not specified		
System		not specified		
Standard Deviation Results		not specified		
Results Details		not specified		
			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
N	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
N	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features .
Domain 2: Test Reliability				
N	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		towards a particular product or outcome.
N	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.
N	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

# mgn

Diethylhexyl Phthalate Vapor Pressure HERO ID: 8435182 Table: 1 of 1

Study Citation:

NIOSH, (1988). Occupational safety and health guideline for di-2-ethylhexyl phthalate (DEHP) potential human carcinogen.

OECD Harmonized

Template: 8435182

Vapor Pressure

		EXTRACTIO	N
Parameter	Data		
Vapor Pressure	= 0.01 - = 1.32 mm Hg		
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage, and Stabilit	y Not Reported; Not Reported; Not Repor	rted; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Repor	rted; Not Reported	
Temperature	20°C (lower) and 200°C (upper)		
System	not reported		
Standard Deviation Results	not reported		
Results Details	not reported		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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.

Study Citation: OECD Harmonized	NLM, (2015). I Vapor Pressure	PubChem: Hazardous Substance Data Bar	nk: Bis(2-ethylhe	exyl) phthalate, 117-81-7.
Template: HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		1.42E-7 mm Hg		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature		25°C		
System		Not Reported		
Standard Deviation Results	<b>.</b>	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Hinckley, D.A. et al. 1990. J Chem Eng Data 35: 232-7.

Study Citation: OECD Harmonized	NTP, (2000). N Vapor Pressure	TP-CERHR expert panel report on di(2-	ethylhexyl) phtha	late. GRA and I(GRA and I):120.			
Template: HERO ID:	679847						
			EXTRACTIO	N			
Parameter		Data					
Vapor Pressure		1.0e-7 mmHg					
CASRN and Test Material		117-81-7; Di-(2-Ethylhexyl) Phthalate					
Confidentiality, Type, and	Guideline	no; not specified; Not Reported					
Solvent, Reactivity, Storage		Not Reported; Not Reported; Not Reported	rted; Not Reported				
Radiolabel, Source, State,	•	Not Reported; Not Reported; Not Reported	•				
Temperature	·	25 C	•				
System		Not Reported					
Standard Deviation Results	3	Not Reported					
Results Details		Not Reported					
			EVALUATIO	N			
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 Reliabil	lity						
	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 Quali	ty Determi	nation	High				

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

Study Citation: OECD Harmonized Template:	O'Neil, M. J. (2 Vapor Pressure	2013). DEHP. 117-81-7. [Bis(2-ethylhexy	vl) ester]. :517.	
HERO ID:	5926381			
			EXTRACTIO	)N
Parameter		Data		
Vapor Pressure		0.003 mm Hg		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		100°C		
System		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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.

High

**Overall Quality Determination** 

<sup>\*</sup> Related References: O'Neil, M.J. (Ed.). 2013. The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry. p. 517.

Study Citation: O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517. OECD Harmonized Vapor Pressure

HERO ID:	5926381			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		1.2 mm Hg		
CASRN and Test Materia	1	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storag		NR; NR; NR		
Radiolabel, Source, State,	•	Not Reported; NR; NR; NR		
Temperature		200°C		
System		Not Reported		
Standard Deviation Resul	ts	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 inclu-
		<u> </u>		sion 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

<sup>\*</sup> Related References: O'Neil, M.J. (Ed.). 2013. The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry. p. 517.

Diethylhexyl Phthalate Vapor Pressure HERO ID: 5926381 Table: 3 of 3

**Study Citation:** O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517. **OECD Harmonized** Vapor Pressure

Template:

**HERO ID:** 5926381

		EXTRACTIO	N
Parameter	Data		
Vapor Pressure	96 mm Hg		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Temperature	300°C		
System	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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.
		8	1

# **Overall Quality Determination**

Models

Metric 6:

Rating of this factor is not applicable to this kind of information.

N/A

High

<sup>\*</sup> Related References: O'Neil, M.J. (Ed.). 2013. The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals. Cambridge, UK: Royal Society of Chemistry. p. 517.

Study Citation: Price, D. M. (2001). Volatilisation, evaporation and vapour pressure studies using a thermobalance. Journal of Thermal Analysis and Calorimetry

64(1):315-322.

OECD Harmonized Template:

onized Vapor Pressure

**HERO ID:** 5626585

**EXTRACTION** 

Parameter Data

Vapor Pressure ca. 0.1 - ca. 100 Pa

CASRN and Test Material Not Reported; bis(2-ethylhexyl) phthalate Confidentiality, Type, and Guideline none; experimental; not reported

Solvent, Reactivity, Storage, and Stability NR; NR; NR; NR

Radiolabel, Source, State, and Purity NR; Exxon Chemicals; NR; technical grade Notes: dioctyl phthalate

Temperature ca. 100-200C

System Thermogravimetric Analyzer: TA Instruments TG 2950 with a water-cooled vertical furnace

Standard Deviation Results not reported

Results Details Values estimated from a line graph of measured VP (Pa) vs Temperature (C)

			EVALUATIO	N
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 Reliab	ility			
	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.

**Study Citation:** 

Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.

**OECD Harmonized** 

Vapor Pressure

Template:

		I	EXTRACTIO	N
Parameter		Data		
Vapor Pressure		= 0.00000005 kPa		
CASRN and Test Material		Not Reported; Bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guidelin	e	none; experimental; Not Reported		
Solvent, Reactivity, Storage, and St	ability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purit	ty	NR; NR; NR; NR		
Temperature		25°C		
System		Not reported		
Standard Deviation Results		Not reported		
Results Details		Not reported		
			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
Metri	ic 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
Metri	ic 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
Metri	ic 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.
Metri	ic 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				
Metri	ic 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.
Metri	ic 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

Study Citation: OECD Harmonized	U.S. EPA, (201 Vapor Pressure	9). Comptox Chemicals Dashboard: Di(2-	ethylhexyl) phtl	nalate (CASRN 117-81-7).
Template: HERO ID:	5926154			
			EXTRACTIO	N
Parameter		Data		
Vapor Pressure		1.42E-7 mm Hg		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature		Not Reported		
System		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: PhysProp. Hinckley, DA et al. 1990

Diethylhexyl Phthalate logKow HERO ID: 675060 Table: 1 of 1

Study Citation:		Remberger, M., Kaj, L., Ekheden, Y., Durt 1: Phthalates. GRA and I(GRA and I):3		unden, E. (2007). Results from the Swedish National Screening Programme
OECD Harmonized	logKow			
Template:				
HERO ID:	675060			
			EXTRACTION	
Parameter		Data		
$\log k_{ow}$		7.73		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag	ge, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,		None; NR; NR; NR		
Temperature	•	Not Reported		
System		Not Reported		
pН		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Result	s	Not Reported		
Results Details		Not Reported		
		1		
ъ.		M.:	EVALUATION	
Domain Domain 1: Substance		Metric	Rating	Comments
Domain 1: Substance	M-4 1.	D	TT: _1.	
	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 Reliabi	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Quali			N/A <b>Medium</b>	e e e e e e e e e e e e e e e e e e e

<sup>\*</sup> Related References: Cousins, I. T., Mackay, D., Parkerton, T. F.. Physical-chemical properties and evaluative fate modelling of phthalate esters. The Handbook of Environmental Chemistry, vol 3Q. 2003. 3:57-84.

Study Citation: OECD Harmonized	CPSC, (2015). logKow	Exposure assessment: Composition, production	duction, and use of phtl	nalates.
Template: HERO ID:	5155508			
			EXTRACTION	
Parameter		Data		
log k <sub>ow</sub>		5.11		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; NR; NR		
Temperature		Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with other reported physical chemical properties.
Domain 2: Test Reliabil	lity			
	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 publicly available secondary source without peer-review.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	tv Determi	nation	Medium	

<sup>\*</sup> Related References: Health Canada, 1994. Bis(2-ethylhexyl) Phthalate. Priority Substances List Assessment Report. Canadian Environmental Protection Act. Health Canada.

Study Citation: OECD Harmonized Template:	EC/HC, (2017) logKow	Draft screening assessment: Phthalate	substance groupin	ıg.
HERO ID:	5353181			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		7.14		
CASRN and Test Material		117-81-7; Dibutyl phthalate		
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		
Temperature	·	not specified		
System		not specified		
pH		not specified		
Results Details Method		not specified		
Standard Deviation Results	S	not specified		
Results Details		not specified		
			EVALUATIO	N
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 Reliabil	litv			
	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				
Zemain o. Gaici	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 Quali	ty Determi	ination	High	

<sup>\*</sup> Related References: Source cited: ECHA c2007-2015b

Study Citation:				Socio-economic Analysis (SEAC): Background document to the Opinion on the
OECD Harmonized	Annex XV doss logKow	sier proposing restrictions on four phthala	ates: Annexes.	
Template:	8			
HERO ID:	7325405			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		7.5		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and		none; not specified; not specified		
Solvent, Reactivity, Storage		NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR		
Temperature		not specified		
System		not specified		
pH		not specified		
Results Details Method		not specified		
Standard Deviation Results	3	not specified		
Results Details		not specified		
			EVALUATIO	N
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 Reliabil	lity			
2 omani 2. Test Renauli	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	wieure 3.	(Method Objectivity)	Wiedium	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	36	D I	TT' 1	
	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 Quali	ty Determi	nation	High	

<sup>\*</sup> Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

Study Citation: OECD Harmonized	ECJRC, (2008) logKow	. European Union risk assessment report:	Bis(2-ethylhexyl)phth	nalate (DEHP).
Template:				
HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
$\log k_{ow}$		7.45		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and		no; experimental; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR		
Radiolabel, Source, State, and Purity		NR; NR; liquid; NR		
Temperature	<b>.</b>	Not Reported		
System		Slow-stir apparatus		
рH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	s	±0.06		
Results Details		Not Reported		
Domain		Metric	EVALUATION Rating	Comments
Domain 1: Substance		Wictric	Kating	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.
	Wiedie 2.	rippropriateiless	111511	Treasured data are consistent with the subject electrical substance structural reactions.
Domain 2: Test Reliabil	lity			
	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.
D : 2 OI				
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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: De Bruijn et al. (1989) Environ. ToxicoL Chem. 8, 499-512.

HERO ID: 1614673 Table: 2 of 8

Diethylhexyl Phthalate

Study Citation:	ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).
<b>OECD Harmonized</b>	logKow

Template: HERO ID: 161	4673			
			EXTRACTION	
Parameter		Data		
log k <sub>ow</sub>		7.5		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guidel	ine	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and		NR; NR; NR		
Radiolabel, Source, State, and Pu		NR; NR; liquid; NR		
Temperature		Not Reported		
System		Not Reported		
рН		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Recommend. Used in this assessment		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance		_		
	tric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
Me	tric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
	tric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biase towards a particular product or outcome.
Me	tric 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				
	tric 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.
Ma	tric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

# Overall Quality Determination

#### Medium

<sup>\*</sup> Related References: Staples CA, Peterson DR, Parkerton TF and Adams WJ (1997). The Environmental Fate of Phthalate Esters. A Literature Review. Chemosphere 35(4), 667-749.

HERO ID: 1614673 Table: 3 of 8

Diethylhexyl Phthalate logKow

Study Citation:	ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).
OECD Harmonized	logKow

**Template:** 

logKow

<b>HERO ID:</b> 1614673			
		EXTRACTION	
Parameter	Data		
$\log k_{ow}$	7.7		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
Temperature	20°C		
System	RP-HPLC		
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	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 Determi	nation	Medium	

<sup>\*</sup> Related References: Condea (1995) Partition coefficient n-octanol/water and water solubility of phthalic acid esters, Bunsbuettel. Condea Report Sh/94-24, (18.09.1995).

Diethylhexyl Phthalate logKow HERO ID: 1614673 Table: 4 of 8

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized Template:

logKow

		EXTRACTION	
Parameter	Data		
log k <sub>ow</sub>	8		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
Temperature	20°C		
System	Not Reported		
рН	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	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.

# \* Related References: BASF AG (1987) Analytical laboratory, unpublished results, report BRU 87.212 (08.10.1987)

HERO ID: 1614673 Table: 5 of 8

Diethylhexyl Phthalate logKow

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

**OECD Harmonized** 

logKow

Template:

		EXTRACTION	
Parameter	Data		
$\log k_{ow}$	4.88		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
Temperature	25°C		
System	Not Reported		
pН	Not Reported		
Results Details Method	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATION	
Domain	Metric	Rating	Comments
Domain 1: Substance	nadic	Tuung	Comments
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.
D			
Domain 2: Test Reliability	D-1:-1:1:4/II-1::1	M - 4'	
Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
Metric 4:	(Method Objectivity) Reliability/Analytical Method	Medium	The analytical method is unknown but is likely to be appropriate based on the data's
Metric 4.	Renaomity/Anarytical Method	Medium	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
Metric 3:	Datavases	MEGIUIII	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.

<sup>\*</sup> Related References: Batelle Institut (1982) Review "Merkblaetter ueber Referenzchemikalien" (11/1982); BUA (1986). Di-(2-ethylhexyl) phthalate. BUA Report 4. January 1986. Gesellschaft Deutscher Chemiker

HERO ID: 1614673 Table: 6 of 8

Diethylhexyl Phthalate logKow

**Study Citation:** ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP). logKow

**Template:** 

		EXTRACTION	
Parameter	Data		
log k <sub>ow</sub>	7.86		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stabili	ty NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
Temperature	Not Reported		
System	Not Reported		
pH	Not Reported		
Results Details Method	Not Reported		
Standard Deviation Results	$\pm$ 1.33		
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 biase towards a particular product or outcome.
Metric 4:		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

<sup>\*</sup> Related References: Klein W, Kordel W, Weill Mand Poremski HJ (1988) Chemosphere 17 (2), 361-386.

HERO ID: 1614673 Table: 7 of 8

Diethylhexyl Phthalate logKow

Study Citation:	ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).
Study Citation.	Ecsive, (2000). European Chion fisk assessment report. Dis(2 ethylnexy)/phthalate (DEIII ).
OECD Harmonized	logKow
OLCD Harmonized	logikow

Template:

		EXTRACTION	
Parameter	Data		
$\log k_{ow}$	7.27		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; 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	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

#### Mealum

<sup>\*</sup> Related References: Ellington JJ and Floyd TL (1996). Octanol/water partition coefficients for eight phthalate esters. US-EPA, Env. Res. Brief EP A/600/S-96/006.

HERO ID: 1614673 Table: 8 of 8

Diethylhexyl Phthalate logKow

Study	Citation:
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ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

logKow

Template:

		EXTRACTION	
Parameter	Data		
$\log k_{ow}$	7.14		
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR		
Temperature	Not Reported		
System	Not Reported		
pH	Not Reported		
Results Details Method	Not Reported		
Standard Deviation Results	$\pm~0.15$		
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 biase 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.

<sup>\*</sup> Related References: Brooke et al. (1990) Chemosphere 21, 119-133.

Study Citation: OECD Harmonized Template:	Elsevier, (2021) logKow	). Reaxys: physical-chemical property data	a for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		7.54 - 8.39		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature		Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		@ 25 C; 3 values were reported in Reaxys	s; 2 values were re	ported at 7.54 to 8.39 at 25 C; 1 value was reported at unreported temperature.
			EVALUATIO	N
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 Reliabil	itv			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Qualit	tv Determi	nation	High	

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of

commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662.

**OECD Harmonized Template:** 

**Study Citation:** 

logKow

**HERO ID:** 679985

EXTRACTION				
Parameter	Data			
$\log k_{ow}$	7.94			
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and Guideline	None; Experimental; Not Reported			
Solvent, Reactivity, Storage, and Stability	NR; NR; If more than one manufacturer produced the individual PAE, the PAE product provided to us was an equal-proportion blend.			
Radiolabel, Source, State, and Purity	NR; Provided to Chemical Manufacturers' Association by U.S. manufacturers.; NR; >99% purity Notes: single isomer			
Temperature	Not reported			
System	HPLC method from a draft ASTM standard practice: Swann, R.L., D.A. Laskowski, P.J. McCall, K. Vander Kuy and H.J. Dishburger. 1983.			
рН	Residue Rev. 85:17-28. Not reported			
Results Details Method	The standards were benzene (log KOW=2.13), bromobenzene (log KOW = 2.99), biphenyl (log KO, = 3.76), bibenzyl (log KOW = 4.81), p,p-DDE			
	(log KOW = $5.69$ ), $2.4.5$ , $2.5$ '-pentachlorobiphenyl (log KOW = $6.11$ ) and $2.4.5$ , $2.4$ ', $5$ '-hexachlorobiphenyl (log KOW = $6.72$ ).			
Standard Deviation Results	Not reported			
Results Details	Result is outside the range of the standards and noted as being 3 log units higher than other literature values.			

			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	Low	The result is outside the range of the standards and noted as being 3 log units higher than other literature values.
Domain 2: Test Reliab	ility			
	Metric 3:	Reliability/Unbiased	High	Peer-reviewed article with other literature values used as reference.
	Metric 4:	(Method Objectivity) Reliability/Analytical Method	Low	Result is outside the range of the standards and noted as being 3 log units higher than other literature values.
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**

Continued on next page ...

Diethylhexyl Phthalate logKow HERO ID: 679985 Table: 1 of 1

#### ... continued from previous page

Study Citation: Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of

commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662. logKow

**OECD Harmonized Template:** 

**HERO ID:** 679985

**EVALUATION** 

Domain Metric Rating Comments

Study Citation: Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology

83(2):168-173.

OECD Harmonized

logKow

**Template:** 

**HERO ID:** 807140

FYTR	ACTION

EXTRACTION				
Parameter	Data			
$\log k_{ow}$	7.39			
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate			
Confidentiality, Type, and Guideline	none; QSAR; Quantitative Structure-Property relationship model for estimation of log Kow			
Solvent, Reactivity, Storage, and Stability	NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; NR; NR Notes: DEHP			
Temperature	not applicable			
System	QSPR model using the Lu index, which is based on the shortest distance matrix.			
pH	not applicable			
Results Details Method	Predictive model developed using Lu index: Log Kow = -4.7875 + 0.5315 (Lu)			
Standard Deviation Results	Not Reported			
Results Details	n = 15; correlation coefficient (R) = 0.9836; standard error (SE) = 0.40; leave-one-out cross validation correlation coefficient (Rsv) = 0.9784; corresponding standarderrors (scv) = 0.47			

			<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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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	Uninformative	The QSPR model failed the standard error threshold of <0.3 and is therefore rated una ceptable.

## **Overall Quality Determination**

<b>Study Citation:</b>	Lundberg, G., Nilsson, C. (1994). Phthalic acid esters used as plastic additives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of toxicological effects. GRA and I(GRA and I):284.			
OECD Harmonized	logKow	fects. GRA and I(GRA and I):284.		
Template:				
HERO ID:	680058			
			EXTRACTION	
Parameter		Data		
log k		4.88		
log k <sub>ow</sub> CASRN and Test Material		117-81-7; di-ethylhexyl phthalate		
Confidentiality, Type, and C	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State, a		NR; NR; liquid; NR		
Temperature		Not Reported		
System		Not Reported		
pН		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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	ity			
Domain 2. Test Renauli	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	Wettie 3.	(Method Objectivity)	1/10/1/11	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				
zeman z. emer	Metric 5:	Databases	Low	The data are from a primary source without expert peer-review or an unknown secondary source without peer-review and references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	ty Determi	nation	Medium	

<sup>\*</sup> Related References: References HERO ID 679967 ECETOC, 1985. An assessment of the occurrence and effects of dialkyl orthophthalates in the environment. Technical report No. 19, Brussels.

Study Citation:	Mitsunobu, S., Takahashi, Y. (2006). Study of the water solubility and sorption on particulate matters of phthalate in the presence of humic acid using C-14
	labelled di-(2-ethylhexyl)phthalate. Water, Air, and Soil Pollution 175(1-4):99-115.

**OECD Harmonized Template:** 

logKow

**HERO ID:** 501984

	EXTRACTION		
Parameter	Data		
$\log k_{ow}$	>= 1.9 - <= 3.1		
CASRN and Test Material	117-81-7; Di-(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Non-guideline slow stir method		
Solvent, Reactivity, Storage, and Stability	Hexane; NR; NR; NR		
Radiolabel, Source, State, and Purity	[14C]DEHP 433 MBq/mmol; Sigma Chemical Co. (St. Louis, MO); Stock solution in hexane; >99%		
Temperature	25°C		
System	Slow stirring method for 72 hrs was used to determine octanol-water partitioning in the presence of humic acids paddy soil (THA), lignite (LHA), River HA (SRHA); equilibrium was reached at ca.70 hrs		
pH	pH=5; adjusted with acetate buffer		
Results Details Method	Concentrations of 14C-DEHP were measured in water and octanol phases with a liquid scintillation counter (Aloka, LSC-3000). Octanol-water Keq=concentration of DEHP in octanol/concentration of DEHP in water		
Standard Deviation Results	Not reported		
Results Details	Binding constant between DEHP and humic acids (HAs) in octanol-water and ternary systems (presence of HA and particles). log Keq THA=3.1; LHA=2.3; SRHA 1.9; in the absence of HA, DEHP in the aqueous phase could not be detected.		

			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	Low	The test substance was measured in the presence of humic acid.
Domain 2: Test Relia	bility			
	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	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 Qua	lity Determ	ination	Medium	

Diethylhexyl Phthalate HERO ID: 654554 Table: 1 of 1

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

**OECD Harmonized** 

Template:

HERO ID:	654554			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		8.66		
CASRN and Test Material	l	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Calculation; Not Reported		
Solvent, Reactivity, Storag	ge, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		Not reported		
System		Not reported		
pH		Not reported		
Results Details Method		Not reported		
Standard Deviation Result	s	Not reported		
Results Details		calculated Pow-values -MedChem-Softwar	re 1989	
			EVALUATIO	N
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 Reliabi	lity			
	Metric 3:	Reliability/Unbiased	High	The methodology for producing the information is designed to answer a specific ques-
	Metric 4:	(Method Objectivity)	N/A	tion, and the methodology's objective is clear.
	Metric 4:	Reliability/Analytical Method	IN/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 Quali	tv Determi	nation	High	

Diethylhexyl Phthalate logKow HERO ID: 5178600 Table: 1 of 1

Study Citation: OECD Harmonized	NICNAS, (200 logKow	8). Existing chemical hazard assessmen	nt report: Diethylhexyl pl	hthalate.
Template: HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
11-		7.5		
log k <sub>ow</sub> CASRN and Test Material		7.5 117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and		no; not specified; not reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,	-	NR; NR; NR; NR NR; NR; liquid; NR		
Temperature	and Furity	not reported		
•		not reported		
System pH		not reported		
Results Details Method		not reported		
Standard Deviation Result	e e	Not Reported		
Results Details	5	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 Reliabi	lity			
2 dilain 2. Test Renaul	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)	1110010111	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				
Domain 3. Outer	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Study Citation: DECD Harmonized	NLM, (2015). I logKow	PubChem: Hazardous Substance Data Ba	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template: HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		7.6		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,		Not Reported; NR; NR; NR		
Temperature	·	Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	s	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	M-4 4.	(Method Objectivity)	M - J:.	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 Quali	ty Dotorm	notion	High	
Overan Quan	ty Determin	เมลนบม	mgir	

<sup>\*</sup> Related References: Debruijin, J. et al. 1989. J Environ Toxicol Chem 8: 499-512.

Diethylhexyl Phthalate logKow HERO ID: 679847 Table: 1 of 1

Study Citation: OECD Harmonized	NTP, (2000). N logKow	TP-CERHR expert panel report on di(2-e	thylhexyl) phtha	ate. GRA and I(GRA and I):120.
Template:				
HERO ID:	679847			
			EXTRACTIO	N
Parameter		Data		
		7.50		
log k <sub>ow</sub>		7.50		
CASRN and Test Material	G : 1 1:	117-81-7; Di-(2-Ethylhexyl) Phthalate		
Confidentiality, Type, and		no; not specified; Not Reported		
Solvent, Reactivity, Storage	-	Not Reported; Not Reported; Not Report		
Radiolabel, Source, State, a	and Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Temperature		Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

Study Citation:

OEHHA, (1997). Public health goal for di(2-ethylhexyl)phthalate (DEHP) in drinking water.

OECD Harmonized

logKow

Template:

Template: HERO ID:	5155636			
			EXTRACTION	
Parameter		Data		
log k <sub>ow</sub>		4.89		
CASRN and Test Materia	al	117-81-7; Not Reported		
Confidentiality, Type, and	d Guideline	Not Reported; Not Reported; Not Reported	ed	
Solvent, Reactivity, Stora	age, and Stability	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Radiolabel, Source, State	e, and Purity	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Temperature		Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Resu	lts	Not Reported		
Results Details		Not Reported		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance features.
Domain 2: Test Reliab	oility			
	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 is from a publicly available secondary source without references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
<b>Overall Qual</b>	ity Determi	nation	Medium	

Study Citation: OECD Harmonized Template:	RSC, (2019). C logKow	ChemSpider: Bis-(2-ethylhexyl) phthalate		
HERO ID:	5926269			
			EXTRACTION	
Parameter		Data		
$\log k_{ow}$		7.654		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State,		Not Reported; NR; NR; NR		
Temperature	·	Not Reported		
System		Not Reported		
pH		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	S	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 Reliabil	lity			
	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 Quali	tv Determi	nation	Medium	

<sup>\*</sup> Related References: LabNetwork

**Study Citation:** 

SRC, (1984). Final report measurement of octanol-water partition coefficients of phthalate esters.

**OECD Harmonized Template:** 

logKow

**HERO ID:** 1316207

TITTE	ACCUTANT	
EXTR	ACTION	

Parameter	Data
$\log k_{ow}$	7.94 -
CASRN and Test Material	117-81-7; diethylhexyl phthalate
Confidentiality, Type, and Guideline	No; experimental; HPLC method
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; US Manufacturers; Not Reported; Not Reported Notes: analyzed to be within commercial specification limits
Temperature	25°C
System	partition coefficient correlated to HPLC retention time
pH	Not reported
Results Details Method	HPLC
Standard Deviation Results	Not Reported
Results Details	Author states that the value is unrealistically high.

			<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	Low	Calculated value is higher than expected.
Domain 2: Test Reliab	oility			
	Metric 3:	Reliability/Unbiased (Method Objectivity)	High	The methodology for producing the information is designed to answer a specific que tion, 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** Medium

Study Citation: OECD Harmonized Template:	CCD Harmonized logKow					
HERO ID:	7500055					
			EXTRACTION			
Parameter		Data				
$\log k_{ow}$		= 4.89				
CASRN and Test Material		117-81-7; Not Reported				
Confidentiality, Type, and	Guideline	none; not specified; Not Reported				
Solvent, Reactivity, Storag	e, and Stability	Not Reported; Not Reported; Not Reporte	d; Not Reported			
Radiolabel, Source, State,	and Purity	Not Reported; Not Reported; Not Reporte				
Temperature		not specified				
System		not specified				
pH		not specified				
Results Details Method		not specified				
Standard Deviation Results	S	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	Low	Data are inconsistent with other reported values in the literature.		
Domain 2: Test Reliabil	lity					
Domain 2. Test Kellauli	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased		
	1.100110 5.	(Method Objectivity)	1,10010111	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.		
D : 2 0.1						
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.		

<sup>\*</sup> Related References: Source cited: United States Environmental Protection Agency (USEPA) 2005, Technical Factsheet on: Di (2-ethylhexyl)phthalate (DEHP), Available: http://www.epa.gov/OGWDW/dwh/t-soc/dehp.html [2006, February13, 2006]

Medium

**Overall Quality Determination** 

U.S. Environmental Protection Agency :: U.S. EPA (2015). Update of Human Health Ambient Water Quality Criteria: Bis(2-ethylhexyl) Phthalate (CASRN

Template:	
<b>HERO ID:</b> 10176849	
	EXTRACTION
Parameter	Data
$\log k_{ow}$	= 7.5
CASRN and Test Material	117-81-7; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported
Temperature Not Reported	
System	Not Reported
рН	Not Reported
Results Details Method	Not Reported
Standard Deviation Results Not Reported	
Results Details	Not Reported

Domain		Metric	Rating	Comments
Domain 1: Substance	2			
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	Low	Cited to ATSDR which cites another review: Staples 1997; this review has multiple values for DEHP, 7.5 appears to be an estimation from SPARC.
Domain 2: Test Relia	ability			
	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	Uninformative	The data are from a secondary source citing another secondary source or there are uncertainties regarding the primary source of the data.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

### **Overall Quality Determination**

**Study Citation:** 

117-81-7).

### Uninformative

<sup>\*</sup> Related References: Cited to ATSDR HERO ID 10284163 (not in distiller at time of extraction; ATSDR cites another review: Staples 1997 HERO ID: 675437 - this review has multiple values for DEHP, 7.5 appears to be an estimation from SPARC)

Study Citation:	U.S. EPA, (2017). Original BAF and BCF Data.
<b>OECD Harmonized</b>	logKow
Tompletor	

		EXTRACTION	
Parameter	Data		
log k <sub>ow</sub>	7.5		
CASRN and Test Material	117-81-7; Bis(2-Ethylhexyl) Phthalate		
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 Notes: NR		
Temperature	NR		
System	NR		
pH	NR		
Results Details Method	NR		
Standard Deviation Results	NR		
Results Details	Mean log kow of 7.5 also reported as a calculated value.		
		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	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.

<sup>\*</sup> Related References: Citing ASDR (no year).

Diethylhexyl Phthalate logKow HERO ID: 5926154 Table: 1 of 1

Study Citation: OECD Harmonized	U.S. EPA, (2019) logKow	9). Comptox Chemicals Dashboard: Di(2	2-ethylhexyl) phth	nalate (CASRN 117-81-7).
Template:	logito.			
HERO ID:	5926154			
			EXTRACTIO	N
Parameter		Data		
log k <sub>ow</sub>		7.6		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		Not Reported		
System		Not Reported		
pН		Not Reported		
Results Details Method		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATION	N
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 Reliabil	lity			
	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 Quali	tv Determi	nation	High	

<sup>\*</sup> Related References: PhysProp. Debruijn, J et al. 1989

Study Citation: Verbruggen, E. M., Klamer, C., H.J., Villerius, L., Brinkman, T., U.A., Hermens, J. L. (1999). Gradient elution reversed-phase high-performance liquid

chromatography for fractionation of complex mixtures of organic micropollutants according to hydrophobicity using isocratic retention parameters. Journal

of Chromatography A 835(1-2):19-27.

**OECD Harmonized** 

**Template:** 

logKow

**HERO ID:** 1333747

EXTRACTION				
Parameter	Data			
$\log k_{ow}$	6.69			
CASRN and Test Material	117-81-7; Di(2-ethylhexyl) phthalate			
Confidentiality, Type, and Guideline	None; Experimental; Not Reported			
Solvent, Reactivity, Storage, and Stability	Pure methanol; NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; Fluka, Aldrich-Chemie, Riedel-de Haen, Merck, Shell Nederland Chemie, J.T. Baker or Accu Standards; Liquid; High Notes: Analyte measured at concentration of 0.5-5 mM/200 μL total volume in methanol			
Temperature	$22 \pm 0.2$ °C			
System	Retention times measured with a solvent delivery system and UV detector operated at 254 nm. A C18-bonded silica column and guard column were used for retention. The eluent was a solution of HPLC-grade methanol and MilliQ water.			
pН	Not reported			
Results Details Method	Gradient elution RP-HPLC.			
Standard Deviation Results	Not Reported			
Results Details	Calculated from experimental retention times.			

			<b>EVALUATIO</b>	N
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 Relial	bility			
	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

Diethylhexyl Phthalate logKow HERO ID: 1333747 Table: 1 of 1

#### ... continued from previous page

Study Citation: Verbruggen, E. M., Klamer, C., H.J., Villerius, L., Brinkman, T., U.A., Hermens, J. L. (1999). Gradient elution reversed-phase high-performance liquid

chromatography for fractionation of complex mixtures of organic micropollutants according to hydrophobicity using isocratic retention parameters. Journal

of Chromatography A 835(1-2):19-27.

**OECD Harmonized** 

**Template:** 

logKow

**HERO ID:** 1333747

EVALUATION

Domain Metric Rating Comments

Water Solubility HERO ID: 1316095 Table: 1 of 1 Diethylhexyl Phthalate

**Study Citation:** Boese, B. L. (1984). Uptake efficiency of the gills of english sole (parophrys vetulus) for 4 phthalate esters. Canadian Journal of Fisheries and Aquatic

Sciences 41(11):1713-1718. Water Solubility

**OECD Harmonized** 

Template:

HERO ID: 1316095

EXTR	ACT	ION

Parameter	Data
Water Solubility	0.0006 mg/L
CASRN and Test Material	117-81-7; DEHP
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR
Temperature	12°C
System	Column generator method; seawater pumped through a sand column with the test substance.
pH	Not reported
Results Details Method	Extraction conducted with C18 Bond-Elut columns and eluted with ethylacetate, prior to electron capture capillary gas chromatography analysis.
Standard Deviation Results	Not Reported
Results Details	Determined for 25 o/oo seawater

			EVALUATIO	N
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 Reliabi	ility			
	Metric 3:	Reliability/Unbiased (Method Objectivity)	High	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	Analytic 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.

Study Citation: OECD Harmonized Bussard, J. (1990). Determination of the solubility of DEHP in aquatic test water. Water Solubility

Template:

**HERO ID:** 11327976

EVED	ACTION
H.XIK	AL LILIN

Parameter	Data
Water Solubility	23.3 - ug/L
CASRN and Test Material	117-81-7; Di-(2-ethylhexyl)phthalate
Confidentiality, Type, and Guideline	no; experimental; GLC-ECD measurements taken in rainbow trout test dilution water
Solvent, Reactivity, Storage, and Stability	NR; NR; Stored at room temperature; NR
Radiolabel, Source, State, and Purity	NR; BASF Aktiengesellschaft; clear liquid; 99.8% Notes: NR
Temperature	18 deg C
System	The test system consisted of the following; a glass column, 3 mm glass beads, rubber tubing, a thermometer and water circulating pumps
pН	7.7
Results Details Method	Gas-liquid chromatography with Electron capture detector (ECD)
Standard Deviation Results	NR
Results Details	In rainbow trout test dilution water; average recovery of $104 \pm 9.1\%$ . Average recovery of fortified samples of $116 \pm 4.8\%$

			EVALUATIO	N
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 or behaviors.
Domain 2: Test Reliab	ility			
	Metric 3:	Reliability/Unbiased	High	The methodology for producing the information is designed to answer a specific ques-
		(Method Objectivity)		tion, 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 Qual	ity Determ	ination	High	

Diethylhexyl Phthalate Water Solubility HERO ID: 675060 Table: 1 of 1

Study Citation:				unden, E. (2007). Results from the Swedish National Screening Programme				
OECD Harmonized	Water Solubility	t 1: Phthalates. GRA and I(GRA and I):	39.					
Template:	water bordonie,	,						
HERO ID:	675060							
			EXTRACTION					
Parameter		Data						
Water Solubility		2.49X10-3 mg/L						
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate						
Confidentiality, Type, and C	Guideline	none; not specified; Not Reported						
Solvent, Reactivity, Storage		NR; NR; NR						
Radiolabel, Source, State, a		None; NR; NR; NR						
Temperature		Not Reported						
System		Not Reported						
pН		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 of other physical/chemical properties or behaviors.				
Domain 2: Test Reliabil	itv							
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased				
		(Method Objectivity)		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								
Zomani J. Onioi	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.				

<sup>\*</sup> Related References: Cousins, I. T., Mackay, D., Parkerton, T. F.. Physical-chemical properties and evaluative fate modelling of phthalate esters. The Handbook of Environmental Chemistry, vol 3Q. 2003. 3:57-84.

**Overall Quality Determination** 

**Study Citation:** Defoe, D. L., Holcombe, G. W., Hammermeister, D. E., Biesinger, K. E. (1990). Solubility and toxicity of eight phthalate esters to four aquatic organisms.

Environmental Toxicology and Chemistry 9(5):623-636.

OECD Harmonized

Water Solubility

**Template:** 

**HERO ID:** 5774391

EXTRACTION					
Parameter	Data				
Water Solubility	0.27 - 0.36 mg/L				
CASRN and Test Material	117-81-7; Di-2-ethylhexyl phthalate (DEHP)				
Confidentiality, Type, and Guideline	None; Experimental; Not reported				
Solvent, Reactivity, Storage, and Stability	None; NR; NR; NR				
Radiolabel, Source, State, and Purity	No; Monsanto Chemical Company (St. Louis, MO); NR; >99%				
Temperature	Not reported				
System	Two methods used: Blended stock with centrifugation and Turbidity inflection; ASTM methods with documented deviations.				
pH	Not reported				
Results Details Method	Centrifugation: chemical analysis was performed on the supernatant; Turbidity inflection: Hach Turbidity Meter - Nephelometric Turbidity Units (NTU) values were plotted vs. nominal concentrations.				
Standard Deviation Results	Not reported				
Results Details	Centrifugation results = 0.27 mg/L; Turbidity inflection = 0.36 mg/L				

			EVALUATIO	
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 Reliab	oility			
	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	Data are obtained by accepted standard analytical methods with noted modification.  Temperature not reported.
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

Diethylhexyl Phthalate Water Solubility HERO ID: 5353181 Table: 1 of 1

Study Citation: OECD Harmonized		Draft screening assessment: Phthalate	g.	
Template:	Water Solubility			
HERO ID:	5353181			
			EXTRACTIO	N
Parameter		Data	Emiliario	•
Water Solubility		3.0E-3 mg/L		
CASRN and Test Material		117-81-7; di-ethylhexyl phthalate		
Confidentiality, Type, and G		no; experimental; Not Reported		
Solvent, Reactivity, Storage		NR; NR; NR; NR		
Radiolabel, Source, State, and	nd Purity	NR; NR; NR; NR		
Temperature		not specified		
System		not specified		
pH		not specified		
Results Details Method		not specified		
Standard Deviation Results		not specified		
Results Details		not specified		
			EVALUATIO	N .
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 Reliabili	ty			
	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				
Zomani J. Julei	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 Qualit	v Determir	nation	High	

<sup>\*</sup> Related References: Source cited: ECHA c2007-2015b

Study Citation:	ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.
OECD Harmonized	Water Solubility

Template:

		EXTRACTIO	N
Parameter	Data		
Water Solubility	1E5 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stab	vility Not Reported; Not Reported; No	ot Reported; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; No	t Reported; Not Reported	
Геmperature	20 deg C		
System	Not Reported		
рН	Not Reported		
Results Details Method	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
		EVALUATIO	N
Domain	Metric	Rating	Comments
Domain 1: Substance			
Metric	1: Representativeness	High	Data are measured or estimated for the subject chemical substance.
Metric	2: Appropriateness	Low	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 Metho	d 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.

<sup>\*</sup> Related References: Citing Fishbein and Albro (1972), HERO ID 1313257.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 2 of 9

**Study Citation: OECD Harmonized**  ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

Template:

Water Solubility

			EXTRACTION	
Parameter		Data		
Water Solubility		1.3E3 ug/L		
CASRN and Test Material		Not Reported; DEHP		
Confidentiality, Type, and Guidelin	e	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and St	ability	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Radiolabel, Source, State, and Puris	ty	Not Reported; Not Reported; Not Reporte	d; 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				
Metr	ic 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
Metr	ic 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
Metr	ic 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.
Metr	ic 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
Metr	ic 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.
Metr	ic 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## **Overall Quality Determination**

<sup>\*</sup> Related References: Citing Hirzy, J.W., Adams, W.J., Gledhill, W.E. and Mieuse, J.P. (1979). Phthalates esters: the environmental issues. Unpublished document, Monsanto Industrial Chemicals Co. No HERO ID.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 3 of 9

Study Citation: ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment. Water Solubility

**Template:** 

		EXTRACTION	
Parameter	Data		
Water Solubility	0.6E3 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported	ed; 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 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**

<sup>\*</sup> Related References: Citing Branson D.R.(1980). Priorisation of chemicals according to degree of hazard in the aquatic environment. Envir. Health Perspect., 34, 133. No HERO ID.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 4 of 9

**Study Citation:** 

ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

**OECD Harmonized Template:** 

HERO ID:

Water Solubility

679967

TITTED			
EXTR	A	 1()	N

			EXTRACTION	
Parameter		Data		
Water Solubility		0.4E3 ug/L		
CASRN and Test Material		Not Reported; DEHP		
Confidentiality, Type, and Guidel	ine	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and	Stability	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Radiolabel, Source, State, and Pu	rity	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Temperature		20 deg 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				
Me	tric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
Me	tric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
Me	tric 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.
Me	tric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	etric 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.
Me	tric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality <b>E</b>	)etermi	nation	Medium	

<sup>\*</sup> Related References: Citing Wolfe, N.L., Steen, W.C. and Burns, L.A. (1979). Unpublished report available from US EPA, Environ. Res. Lab., Athens, Georgia. No HERO ID.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 5 of 9

**Study Citation: OECD Harmonized**  ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

Water Solubility

Template: HERO ID: 679967			
		EXTRACTION	
Parameter	Data		
Water Solubility	0.34E3 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reporte	ed; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reporte	_	
Temperature	25 deg 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	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 Determi	nation	Medium	

<sup>\*</sup> Related References: Citing CMA (1983). Measurement of the water-solubility of phthalate esters. Final report, Contract PE-11. 0-WS-SRL. Ll533-06, Syracuse Res. Corp., April, 1983. No HERO ID.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 6 of 9

**Study Citation: OECD Harmonized**  ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

Water Solubility

Template:

			EXTRACTION	
Parameter		Data		
Water Solubility		0.28E3 ug/L		
CASRN and Test Material		Not Reported; DEHP		
Confidentiality, Type, and Guideli	ne	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and S	Stability	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Radiolabel, Source, State, and Pur	rity	Not Reported; Not Reported; Not Reporte	d; 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				
Met	ric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
Met	ric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability				
Met	eric 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.
Met	ric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other				
	eric 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.
Met	ric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

## **Overall Quality Determination**

<sup>\*</sup> Related References: Citing Hollifield, H.C. (1979 but likely 1979). Rapid nephetometric estimate of water solubility of highly insoluble organic chemicals of environmental interest. Bull. Envir. Contam. Toxicol., 23, 579. No HERO ID.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 7 of 9

Study Citation: ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

Water Solubility

Template:

**HERO ID:** 679967

		EXTRACTION	
Parameter	Data		
W C. I. I. I.	0.041F2 //		
Water Solubility	0.041E3 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported	-	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Temperature	Not Reported		
System	Not Reported		
pН	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	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**

<sup>\*</sup> Related References: Citing Leyder and Boulanger (1983) HERO ID 679764.

Diethylhexyl Phthalate Water Solubility HERO ID: 679967 Table: 8 of 9

Study Citation: OECD Harmonized ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

Template:

**HERO ID:** 679967

Water Solubility

<b>EXTR</b>		$\alpha$	T	A)	NΤ
r/X I K	. A			V.	N

Parameter	Data		
Water Solubility	0.0476E3 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Report	-	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Report	ted; Not Reported	
Temperature	15 deg 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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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
Metric 6:	Models	N/A	original sources.  Rating of this factor is not applicable to this kind of information.
Overall Quality Determ	ination	Medium	

# \* Related References: Citing OECD (1979). OECD Chemicals Group, Chemicals Testing Programme (1979-80). Lab. Intercomparison Testing, Pt.II. Umweltbundesamt, Berlin. No HERO ID.

Water Solubility Diethylhexyl Phthalate HERO ID: 679967 Table: 9 of 9

**Study Citation:** 

ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment.

**OECD Harmonized Template:** 

Water Solubility

		EXTRACTION	
Parameter	Data		
Water Solubility	0.0466E3 ug/L		
CASRN and Test Material	Not Reported; DEHP		
Confidentiality, Type, and Guideline	No; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reporte	d; Not Reported	
Temperature	25 deg 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 wa 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**

<sup>\*</sup> Related References: Citing OECD (1979). OECD Chemicals Group, Chemicals Testing Programme (1979-80). Lab. Intercomparison Testing, Pt.II. Umweltbundesamt, Berlin. No HERO ID.

Study Citation:	Annex XV doss	sier proposing restrictions on four phthala		Socio-economic Analysis (SEAC): Background document to the Opinion on the
OECD Harmonized Template:	Water Solubility	у		
HERO ID:	7325405			
			EXTRACTIO	N .
Parameter		Data		
Water Solubility		3 μg/L		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and C	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	nd Purity	NR; NR; liquid; NR		
Temperature		20°C		
System		not specified		
pH		not specified		
Results Details Method		not specified		
Standard Deviation Results		not specified		
Results Details		not specified		
			EVALUATIO	N
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 Reliabili	itv			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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

# \* Related References: Source cited: EU RAR (2008a) EU RAR (2008a). European Chemicals Bureau (2008). European Union, Risk Assessment Report, bis(2-ethylhexyl)phthalate (DEHP). Available at: http://esis.jrc.ec.europa.eu/doc/existing-chemicals/risk\_assessment/REPORT/dehpreport042.pdf

N/A

High

Metric 6:

**Overall Quality Determination** 

Models

peer-reviewed by experts in the field, are broadly available to the public for review and

use OR includes references to the original sources.

Rating of this factor is not applicable to this kind of information.

Study Citation:					
OECD Harmonized	· · · · · · · · · · · · · · · · · · ·				
Template:					
HERO ID:	1614673				
			EXTRACTION		
Parameter		Data			
Water Solubility		0.029 - 0.029 mg/L			
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate			
Confidentiality, Type, and	Guideline	no; not specified; Not Reported			
Solvent, Reactivity, Storage		NR; NR; NR			
Radiolabel, Source, State, a		NR; NR; liquid; NR			
Temperature	·	20°C			
System		Not Reported			
рH		Not Reported			
Results Details Method		Not Reported			
Standard Deviation Results	S	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 Reliabil	lity				
2 cmain 2. Tool Rendon	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased	
		(Method Objectivity)		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					
Domain 3. Outer	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.	

Models

Metric 6:

**Overall Quality Determination** 

N/A

Medium

Rating of this factor is not applicable to this kind of information.

<sup>\*</sup> Related References: Rippen (1992) Handbuch Umweltchemikalien, 13.Erg.Lfg.1/92

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 2 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

Water Solubility

**Template:** 

HERO ID: 1614673

EXTR	Δ(	$\Gamma$	T	U.	N

EXTRACTION		
Parameter	Data	
Water Solubility	ca 0.007 - 0.04 mg/L	
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate	
Confidentiality, Type, and Guideline	no; not specified; Not Reported	
Solvent, Reactivity, Storage, and Stability	NR; NR; NR	
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR	
Temperature	$20^{\circ}\mathrm{C}$	
System	Not Reported	
pH	Not Reported	
Results Details Method	Not Reported	
Standard Deviation Results	Not Reported	
Results Details	BASF AG (1994b) Safety data sheet Palatinol AH (12.08.1994)	
	DVALUATION	

			<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	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Relia	bility			
	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**

<sup>\*</sup> Related References: BASF AG (1994b) Safety data sheet Palatinol AH (12.08.1994)

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 3 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

Water Solubility

**Template:** 

HERO ID: 1614673

<b>EXTR</b>	Δ	CT	M	N

Parameter	Data
Water Solubility	0.0466 mg/L
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR
Temperature	25°C
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	other values reported: 0.0476 mg/L at 15°C; 0.4 mg/L at 20°C; 0.28, 0.6, 1.3 mg/L at unreported temperatures

			<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 Relia	bility			
	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**

<sup>\*</sup> Related References: ECETOC (1985) Technical Report Nr.19, ECETOC Bruessel.

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 4 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

zed Water Solubility

**Template:** 

**HERO ID:** 1614673

EXTR	ACTION

Parameter	Data
Water Solubility	0.041 mg/L
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	no; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR
Temperature	20°C
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Leyder F and Boulanger P (1983) Ultraviolet Absorption, Aqueous Solubility, and Octanol-Water Partition forSeveral Phthalates, Bull. Environ. Dontam. Taoicol. 30, 152-157.

			<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 Relial	bility			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	Metric 4:	(Method Objectivity) Reliability/Analytical Method	Medium	towards a particular product or outcome.  The analytical method is unknown but is likely to be appropriate based on the data's
	Metric 4.	Renability/Analytical Method	Wiedium	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**

<sup>\*</sup> Related References: Leyder F and Boulanger P (1983) Ultraviolet Absorption, Aqueous Solubility, and Octanol-Water Partition for Several Phthalates, Bull. Environ. Dontam. Taoicol. 30, 152-157.

EXTRACTION

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 5 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

OECD Harmonized

Water Solubility

**Template:** 

**Parameter** 

Water Solubility

Results Details

**HERO ID:** 1614673

CASRN and Test Material 117-81-7; bis(2-ethylhexyl) phthalate

Confidentiality, Type, and Guideline no; not specified; Not Reported Solvent, Reactivity, Storage, and Stability NR; NR; NR

Data

0.046 mg/L

Not Reported

Radiolabel, Source, State, and Purity

Temperature

20°C

System

Not Reported

PH

Not Reported

Results Details Method

Standard Deviation Results

Not Reported

Not Reported

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 Reliabi	ility			
	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**

<sup>\*</sup> Related References: OECD (1981) OECD-Laboratory Intercomparision Testing Programme, Part I 1979/80, Part II 1980/81, Initiated by the OECD Chemicals Testing Programme, Expert Group A "Physico-Chemical Properties".

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 6 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

**OECD Harmonized** 

Water Solubility

**Template:** 

**HERO ID:** 1614673

EXTRACTION		
Parameter	Data	
Water Solubility	$0.017~\mathrm{mg/L}$	
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) phthalate	
Confidentiality, Type, and Guideline	no; not specified; Not Reported	
Solvent, Reactivity, Storage, and Stability	NR; NR; NR	
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR	
Temperature	22°C	
System	Surface activity method	
•		

Not Reported pΗ Results Details Method Not Reported Standard Deviation Results Not Reported Results Details Not Reported

			<b>EVALUATION</b>	
Domain		Metric	Rating	Comments
Domain 1: Substance	e			
	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Relia	ability			
	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**

<sup>\*</sup> Related References: Thomsen M, Carlsen L And Hvidt S (2001) Solubilities and surface activities of phthalates investigated by surface tension measurements. Environ. Tox. Technol. 20 (1), 127-132.

Diethylhexyl Phthalate Water Solubility HERO ID: 1614673 Table: 7 of 7

**Study Citation:** 

ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP).

**OECD Harmonized** 

Water Solubility

**Template:** 

**HERO ID:** 1614673

FYTD	CTION	

		EXTRACTION		
Parameter	Data			
Water Solubility	0.0006 mg/L			
CASRN and Test Material	117-81-7; bis(2-ethylhexyl) pht	halate		
Confidentiality, Type, and Guideline	no; experimental; Not Reported			
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; NR; liquid; NR			
Temperature	Not Reported			
System	"generator column" method			
pH	Not Reported			
Results Details Method	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	other reported values: 0.0011 as in seawater	nd 0.0026 mg/L (calculated); 0.003 mg/L review	recommendation and used in this assessment; 1.16 and 1.2 mg/L	
		EVALUATION		
Domain	Metric	Rating	Comments	
Domain 1, Cubatanaa				

			<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	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Relia	bility			
	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	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**

<sup>\*</sup> Related References: Staples CA, Peterson DR, Parkerton TF and Adams WJ (1997). The Environmental Fate of Phthalate Esters. A Literature Review. Chemosphere 35(4), 667-749.

Diethylhexyl Phthalate Water Solubility HERO ID: 5926428 Table: 1 of 1

**Study Citation:** Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7... **OECD Harmonized** Water Solubility **Template: HERO ID:** 5926428 **EXTRACTION** Data **Parameter** Water Solubility 0.001 - 0.003 mg/L CASRN and Test Material 117-81-7; Bis(2-ethylhexyl)phthalate

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 Temperature 25°C System Not Reported pН Not reported Results Details Method Not Reported

Standard Deviation Results Not Reported Results Details 3 data points were reported in Reaxys; 2 values were reported at 0.001 to 0.003 mg/L at standard temperature; 1 data point was measured at non-standard temperature (22 deg C).

			EVALUATIO	N
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 Reliab	oility			
	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.

<sup>\*</sup> Related References: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb. 4; (1997); p. 667 - 749

Study Citation: Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of

commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662.

OECD Harmonized

Water Solubility

**Template:** 

EXTRACTION				
Parameter	Data			
Water Solubility	0.30 mg/L			
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and Guideline	None; Experimental; Not reported			
Solvent, Reactivity, Storage, and Stability	NR; NR; If more than one manufacturer produced the individual PAE, the PAE product provided to us was an equal-proportion blend.			
Radiolabel, Source, State, and Purity	NR; Provided to Chemical Manufacturers' Association by U.S. manufacturers.; NR; >99% purity Notes: single isomer			
Temperature	25°C			
System	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure stated in U.S. Environmental Protection Agency. 1979. TSCA premanufacture testing of new chemical substances: Water solubility. Fed. Reg. 44: 16253-16259.			
pH	Not reported			
Results Details Method	HPLC			
Standard Deviation Results	0.05			
Results Details	In well water			

			<b>EVALUATIO</b>	N
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 Relial	bility			
	Metric 3:	Reliability/Unbiased	High	Standard test method used.
		(Method Objectivity)		
	Metric 4:	Reliability/Analytical Method	High	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure.
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.

Diethylhexyl Phthalate Water Solubility HERO ID: 679985 Table: 2 of 3

Study Citation: Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662.

**OECD Harmonized Template:** 

HERO ID: 679985

EXTRACTION			
Parameter	Data		
Water Solubility	$0.16~\mathrm{mg/L}$		
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; If more than one manufacturer produced the individual PAE, the PAE product provided to us was an equal-proportion blend.		
Radiolabel, Source, State, and Purity	NR; Provided to Chemical Manufacturers' Association by U.S. manufacturers.; NR; >99% purity Notes: single isomer		
Temperature	25°C		
System	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure stated in U.S. Environmental Protection Agency. 1979. TSCA premanufacture testing of new chemical substances: Water solubility. Fed. Reg. 44: 16253-16259.		
pH	Not reported		
5 1 5 11 14 1 1	TIDE O		

pH Not reported
Results Details Method HPLC
Standard Deviation Results
Results Details In salt water

Water Solubility

			<b>EVALUATIO</b>	N
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 Relia	bility			
	Metric 3:	Reliability/Unbiased	High	Standard test method used.
		(Method Objectivity)		
	Metric 4:	Reliability/Analytical Method	High	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure.
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.

**Study Citation:** Howard, P. H., Banerjee, S., Robillard, K. H. (1985). Measurement of water solubilities octanol-water partition coefficients and vapor pressures of commercial phthalate esters. Environmental Toxicology and Chemistry 4(5):653-662.

**OECD Harmonized** Template:

**HERO ID:** 679985

Water Solubility

EXTRACTION	

Parameter	Data
Water Solubility	0.34 mg/L
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; If more than one manufacturer produced the individual PAE, the PAE product provided to us was an equal-proportion blend.
Radiolabel, Source, State, and Purity	NR; Provided to Chemical Manufacturers' Association by U.S. manufacturers.; NR; >99% purity Notes: single isomer
Temperature	25°C
System	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure stated in U.S. Environmental Protection Agency. 1979. TSCA premanufacture testing of new chemical substances: Water solubility. Fed. Reg. 44: 16253-16259.
pH	Not reported
Results Details Method	HPLC
Standard Deviation Results	0.04
Results Details	ASTM Type 2 water

			EVALUATIO	N
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 Relia	bility			
	Metric 3:	Reliability/Unbiased	High	Standard test method used.
		(Method Objectivity)		
	Metric 4:	Reliability/Analytical Method	High	Protocol was designed to meet or exceed the requirements of the EPA-recommended procedure.
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 Qua	lity Determ	ination	High	

Study Citation: Letinski, D. J., Jr, Connelly, M. J., Peterson, D. R., Parkerton, T. F. (2002). Slow-stir water solubility measurements of selected alcohols and diesters.

Chemosphere 43(3):257-265.

Not Reported

OECD Harmonized

Water Solubility

Template:

Results Details

EXTRACTION				
Parameter	Data			
Water Solubility	1.9 μg/L			
CASRN and Test Material	117-81-7; d4-DEHP			
Confidentiality, Type, and Guideline	None; Experimental; Slow-stir water solubility method			
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; Jayflex DHP from ExxonMobil Chemical Company; NR; NR Notes: Cambridge Isotope; Phthalate (single isomer, branched C8), deuterated			
Temperature	$20^{\circ}\mathrm{C}$			
System	glass aspirator bottles, a stir bar was placed in each bottle			
рН	Not reported			
Results Details Method	gas chromatograph equipped with mass selective detector			
Standard Deviation Results	0.21			

			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	Medium	Data are measured for the deuterated form of 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 Reliabi	ility			
	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.

Water Solubility Diethylhexyl Phthalate HERO ID: 807140 Table: 1 of 1

**Study Citation:** Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology

83(2):168-173. Water Solubility

**OECD Harmonized** 

**Template:** 

**HERO ID:** 807140

EVTD	ACTION	
CAIK	ACTION	

Parameter	Data
Water Solubility	5.41X10-3 mg/L
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	none; QSAR; Quantitative Structure-Property relationship model for estimation of water solubility
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR Notes: DEHP
Temperature	not applicable
System	QSPR model using the Lu index, which is based on the shortest distance matrix.
pH	not applicable
Results Details Method	Predictive model developed using Lu index: Log Sw = 8.2431 - 0.5718 (Lu)
Standard Deviation Results	Not Reported
Results Details	n = 34; correlation coefficient (R) = 0.9869; standard error (SE) = 0.44; leave-one-out cross validation correlation coefficient (Rsv) = 0.9709; corresponding standarderrors (scv) = 0.47

			<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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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	Uninformative	The QSPR model failed the standard error threshold of $<$ 0.3 and is therefore rated unacceptable.

# **Overall Quality Determination**

Study Citation:	Lundberg, G., Nilsson, C. (1994). Phthalic acid esters used as plastic additives: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of toxicological effects. GRA and I(GRA and I):284.			es: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of
OECD Harmonized	Water Solubility			
Template: HERO ID:	680058			
			EXTRACTION	
Parameter		Data		
Water Solubility		0.045 mg/L		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability Radiolabel, Source, State, and Purity		NR; NR; NR		
		NR; NR; liquid; NR Notes: DEHP		
Temperature		25°C		
System		not reported		
pH		not reported		
Results Details Method		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		reported as 45 ug/L or 340 ug/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	High	Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	lity			
	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

# \* Related References: References HERO ID 679967 ECETOC, 1985. An assessment of the occurrence and effects of dialkyl orthophthalates in the environment. Technical report No. 19, Brussels.

Metric 6:

**Overall Quality Determination** 

Models

N/A

Medium

original sources.

Rating of this factor is not applicable to this kind of information.

Study Citation:				ption on particulate matters of phthalate in the presence of humic acid using C-14
OECD Harmonized		thylhexyl)phthalate. Water, Air, and Soil Po	ollution 175(1-	4):99-115.
Template:	Water Solubilit	у		
HERO ID:	501984			
			EXTRACTIO	N
Parameter		Data		
Water Solubility		0.0006 - 0.4 mg/L		
CASRN and Test Material	1	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Not specified; Not reported		
Solvent, Reactivity, Storag	ge, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		20°C		
System		Reported reference value range		
pН		Not Reported		
Results Details Method		Boese, 1984; Russell and McDuffle, 1986		
Standard Deviation Result	is	Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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	Data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors.
Domain 2: Test Reliabi	lity			
	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.

<sup>\*</sup> Related References: Boese, B.L., 1984. Canada J Fish Aquat Sci, 41, 1713-8.; Russell, D.J., B. McDuffle. 1986. Chemosphere 15, 1003-21

**Overall Quality Determination** 

High

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

Water Solubility

Template:

EXTRACTION					
Parameter	Data				
Water Solubility	0.30 mg/L				
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate				
Confidentiality, Type, and Guideline	None; Calculation; Not reported				
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR	NR; NR; NR			
Radiolabel, Source, State, and Purity	Not Reported; NR; NR; NR				
Temperature	Not reported				
System	Statistical estimation in relation to partiti	on coefficients.			
pН	Not reported				
Results Details Method	Not Reported				
Standard Deviation Results	Not Reported				
Results Details	Reported as 7.68E-7 mol/L				
		EVALUATIO	N		
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 Determ	ination	High			

Study Citation: OECD Harmonized Template:				hthalate.
HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
Water Solubility		0.041 mg/L		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not reported		
Solvent, Reactivity, Storag		NR; NR; NR		
Radiolabel, Source, State,	•	NR; NR; liquid; NR		
Temperature	•	25°C		
System		not reported		
pН		Not Reported		
Results Details Method		not reported		
Standard Deviation Results	S	Not Reported		
Results Details		reported as 4.1X10-5 g/L		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance			8	
	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 Reliabil	litv			
20	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Water Solubility Diethylhexyl Phthalate HERO ID: 192177 Table: 1 of 1

**Study Citation: OECD Harmonized**  NIOSH, (2007). NIOSH pocket guide to chemical hazards.

Water Solubility

Template: HERO ID: 192177	•		
		EXTRACTIO	N
Parameter	Data		
Water Solubility	0.00003 - g/100 ml		
CASRN and Test Material	117-81-7; Di(2-ethylhexyl)phthalate		
Confidentiality, Type, and Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR		
Temperature	75°F		
System	NR		
рН	NR		
Results Details Method	NR		
Standard Deviation Results	NR		
Results Details	Solubility in water at 75°F reported as %	by weight (g/100	ml)
		EVALUATIO	
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.
D : 2 04			-
Domain 3: Other	D I	3.6.12	
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	<b>Quality Determination</b>	High
O / CI CII	Quality Determination	****

**Study Citation: OECD Harmonized**  NIOSH, (2019). NIOSH pocket guide to chemical hazards: Di-sec octyl phthalate. Water Solubility

Template: HERO ID: 8407718

Data	EXTRACTIO			
0.3 mg/L				
117-81-7; Di-ethylhexyl phthalate				
none; not specified; not specified				
Not Reported; Not Reported; Not Repor	ported; Not Reported; Not Reported			
Not Reported; Not Reported; Not Repor	ted; Not Reported			
75°F				
not reported				
reported as 0.00003% (percent by weigh	nt ie. g/100 mL)			
	EVALUATIO	N		
Metric	Rating	Comments		
Representativeness	High	Data are measured or estimated for the subject chemical substance.		
Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.		
Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.		
Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.		
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.		
Models	N/A	Rating of this factor is not applicable to this kind of information.		
•		Models N/A		

<b>Study Citation:</b>
OECD Harmonized

NIOSH, (1988). Occupational safety and health guideline for di-2-ethylhexyl phthalate (DEHP) potential human carcinogen.

OECD Harmonized

Water Solubility

**Template:** 

<b>HERO ID:</b> 8435182			
		EXTRACTION	
Parameter	Data		
Water Solubility	= 0.005  g/100g water		
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported	ed; Not Reported	
Temperature	20°C (36°F)		
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	Low	Data are inconsistent with the subject chemical substance structural features or other physical/chemical properties 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	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.
<b>Overall Quality Determ</b>	nination	Medium	

EXTRACTION

**Study Citation:** NLM, (2015). PubChem: Hazardous Substance Data Bank: Bis(2-ethylhexyl) phthalate, 117-81-7. Water Solubility

Data

**OECD Harmonized** 

**Template:** 

Parameter

Water Solubility	0.27 mg/L		
CASRN and Test Material 117-81-7; Bis(2-ethylhexyl)phthalate			
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		
Temperature	Not Reported		
System	Not Reported		
pH	Not reported		
Results Details Method	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Secondary source reports measured temp	perature which was	not included in the primary source.
		EVALUATIO	N
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.
Denocia 2. Test Balishilita			
Domain 2: Test Reliability	D-1:-b:1:4/II-b:	II: -1-	
Metric 3:	Reliability/Unbiased	High	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
Metric 4:	(Method Objectivity) Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data's inclu-
Wettle 4.	Renaomty/Anarytical Method	Wiedium	sion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other			
Metric 5:	Databases	Medium	Data is from a publicly available database that provides references to original sources.
			However, a temperature was reported when the original source did not include temperature measurement.
Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determi	ination	High	

<sup>\*</sup> Related References: Defoe, D.L. et al. 1990. Environ Toxicol Chem 9: 623-36.

Diethylhexyl Phthalate Water Solubility HERO ID: 679847 Table: 1 of 1

**Study Citation:** 

NTP, (2000). NTP-CERHR expert panel report on di(2-ethylhexyl) phthalate. GRA and I(GRA and I):120.

OECD Harmonized

Water Solubility

**Template:** 

<b>HERO ID:</b> 679847			
		EXTRACTIO	N
Parameter	Data		
Water Solubility	0.003 mg/L		
CASRN and Test Material	117-81-7; Di-(2-Ethylhexyl) Phthalate		
Confidentiality, Type, and Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Report	rted: Not Reported	
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Report		
Temperature	Not Reported	rica, rvot ricportea	
System	Not Reported		
pH	Not Reported		
Results Details Method	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	essentially insoluble, 3 μg/L		
		EVALUATIO	
Domain	Metric	Rating	Comments
Domain 1: Substance		TT' 1	
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 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.
<b>Overall Quality Determ</b>	ination	High	

<sup>\*</sup> Related References: CMA. Comments of the Chemical Manufacturers Association phthalate esters panel in response to request for public input on seven phthalate esters. FR Doc. 99-9484. Washington, DC: Chemical Manufacturers Association, 1999.

**Study Citation:** OEHHA, (1997). Public health goal for di(2-ethylhexyl)phthalate (DEHP) in drinking water. Water Solubility

Template:

**HERO ID:** 5155636

EXTR		

	EXTRACTION
Parameter	Data
Water Solubility	0.285 mg/L
CASRN and Test Material	117-81-7; Not Reported
Confidentiality, Type, and Guideline	Not Reported; Not Reported; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported
Temperature	24°C
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Also reports <0.01% in water at 25 C

			<b>EVALUATION</b>	
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical structural features and other physical/chemical properties.
Domain 2: Test Reliabi	ility			
	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 publicly available secondary source without references to the original sources.
	Metric 6:	Models	N/A	The analytical method is unknown and there is no indication that a reliable method was used.

# Overall Quality Determination Medium

Diethylhexyl Phthalate Water Solubility HERO ID: 11327987 Table: 1 of 1

Study Citation:

Schuster, L. L. (1988). Method validation for the analysis of DEHP (CAS No. 117-81-7) in aquatic test water.

**OECD Harmonized Template:** 

**HERO ID:** 11327987

Water Solubility

	EXTRACTION
Parameter	Data
Water Solubility	40 - ng/mL
CASRN and Test Material	117-81-7; DEHP
Confidentiality, Type, and Guideline	No; Experimental; U.S. EPA-TSCA, 40 CFR, Part 797, No Specific Test Guidelines
Solvent, Reactivity, Storage, and Stability	NR; NR; stored at room temperature; NR
Radiolabel, Source, State, and Purity	NR; BASF Aktiengesellschaft; clear liquid; 99.8% Notes: primary stock was prepared in acetone (1.07 mg/mL) and stored at room temperature.
Temperature	20 deg C
System	Rainbow trout test dilution water
pH	7.6-8.4
Results Details Method	Hewlett-Packard 5890 gas-liquid chromatograph equipped with an electron capture detector.
Standard Deviation Results	Not Reported
Results Details	The water solubility of 40 ng/ml at 20 deg C, with colloidal suspension at $>$ 340 ng/ml was stated from another report. This report is a method validation where the average recovery of $104 \pm 9.1\%$ was reported for a range of $1.07$ - $1070$ ug/L.

			<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 or behaviors.
Domain 2: Test Relia	3	5		
	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 Medium

<sup>\*</sup> Related References: Source is a method validation for a water solubility test not the solubility test itself. Water solubility reported is cited to Bundesumweltamt-Scoffbericht 4, page 3, January 1986, VCH-Verlag

**Study Citation: OECD Harmonized**  SRC, (1983). Measurement of the water solubilities of phthalate esters (final report). Water Solubility

Template:

-		
H:XTR	ACTION	

EXTRACTION			
Parameter	Data		
Water Solubility	0.30 - $mg/L$		
CASRN and Test Material	117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and Guideline	No; experimental; Measured test compound solubility in water by HPLC		
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported		
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported		
Temperature	25℃		
System	Samples shaken in well water from Bionomics facility in Wareham, Massachusetts, centrifuged and then analyzed		
pH	Not Reported		
Results Details Method	HPLC		
Standard Deviation Results	$\pm 0.05$		
Results Details	Not Reported		

			EVALUATIO	N
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 Reliab	ility			
	Metric 3:	Reliability/Unbiased	Low	The study authors state that the experimental uncertainty exceeded that targeted in the SOP.
	Metric 4:	(Method Objectivity) 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: Metric 6:	Databases Models	N/A N/A	Rating of this factor is not applicable to this kind of information.  Pating of this factor is not applicable to this kind of information.
Overall Quali		Models	N/A High	Rating of this factor is not applicable to this kind of information.

Diethylhexyl Phthalate Water Solubility HERO ID: 1316216 Table: 2 of 3

**Study Citation:** 

SRC, (1983). Measurement of the water solubilities of phthalate esters (final report).

OECD Harmonized

Water Solubility

Template:

EXTR		CIT	DT.	$\sim$	<b>TA</b> 1	
H.XIK	A		ш	u	IN	

Parameter	Data			
Water Solubility	0.16 - mg/L			
CASRN and Test Material	117-81-7; diethylhexyl phthalate			
Confidentiality, Type, and Guideline	No; experimental; Measured test compound solubility in water by HPLC			
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported			
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported			
Temperature	25°C			
System	Samples shaken in seawater from Pensacola, Florida, centrifuged and then analyzed			
pH	Not Reported			
Results Details Method	HPLC			
Standard Deviation Results	$\pm 0.04$			
Results Details	Not Reported			

			<b>EVALUATIO</b>	N
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 Reliab	ility			
	Metric 3:	Reliability/Unbiased (Method Objectivity)	Low	The study authors state that the experimental uncertainty exceeded that targeted in the SOP.
	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	Hig
Jici an Quanty Determination	1112

**Study Citation:** 

SRC, (1983). Measurement of the water solubilities of phthalate esters (final report).

**OECD Harmonized** Template:

Water Solubility

		EXTRACTIO	N .	
Parameter	Data	LATRICTIO	21	
W. 0.11''	0.24			
Water Solubility CASRN and Test Material	0.34 - mg/L			
	117-81-7; diethylhexyl phthalate	4 1 1114 1	ator has LIDL C	
Confidentiality, Type, and Guideline	No; experimental; Measured test compou		aler by HPLC	
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Report			
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Report	ea; Not Reported		
Temperature	25°C	2 1 1.1	1 1	
System	_	Samples shaken in distilled water, centrifuged and then analyzed		
pH	Not Reported			
Results Details Method	HPLC ±0.04			
Standard Deviation Results			and the terror to discontinuous COD Value are set allowed as a small linear continuous Description.	
Results Details	reported value = $0.33\pm0.05$ , value obtain	•	led that targeted in the SOP. Value reported based on curvilinear equation. Previously	
	reported value = 0.55±0.05, value obtain	ica by addition = 0.	3220.00 (mean equation).	
		EVALUATIO	N	
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	Low	The study authors state that the experimental uncertainty exceeded that targeted in the	
	(Method Objectivity)		SOP.	
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				
Domain J. Ould	Databases	N/A	Rating of this factor is not applicable to this kind of information.	
Metric 5:	Databases	1 1/17	rading of this factor is not applicable to this kind of information.	
Metric 5: Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.	

Study Citation: OECD Harmonized Template:	The Massachusetts Toxics Use Reduction Institute (2006). Five chemicals alternatives assessment study. Water Solubility				
HERO ID:	7500055				
			EXTRACTIO	N	
Parameter		Data			
Water Solubility		0.285 mg/L			
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and	Guideline	Not Reported; Not Reported; Not Report	ted		
Solvent, Reactivity, Storag	e, and Stability	Not Reported; Not Reported; Not Report	ted; Not Reported		
Radiolabel, Source, State,	and Purity	Not Reported; Not Reported; Not Report	ted; Not Reported		
Temperature		24C			
System		Not Reported			
pH		Not Reported			
Results Details Method		Not Reported			
Standard Deviation Results	S	Not Reported			
Results Details		slightly soluble in water			
			EVALUATIO	N	
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 Reliabil	lity				
	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					
Domain 3. One	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.	

High

**Overall Quality Determination** 

<sup>\*</sup> Related References: Source cited: United States Environmental Protection Agency (USEPA) 2005, Technical Factsheet on: Di (2-ethylhexyl)phthalate (DEHP), Available: http://www.epa.gov/OGWDW/dwh/t-soc/dehp.html [2006, February13, 2006]

Study Citation:		9). Comptox Chemicals Dashboard: Di(2-	ethylhexyl) phtl	nalate (CASRN 117-81-7).
OECD Harmonized	Water Solubility	y		
Template:	5026154			
HERO ID:	5926154			
			EXTRACTIO	N
Parameter		Data		
Water Solubility		0.27 mg/L		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature	-	Not Reported		
System		Not Reported		
pН		Not reported		
Results Details Method		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	itv			
Domain 2. Test Remain	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: PhysProp. Defoe, DL et al. 1990

Study Citation: OECD Harmonized	CPSC, (2015). I	Exposure assessment: Composition, proc	luction, and use of pht	halates.
Template:				
HERO ID:	5155508			
			EXTRACTION	
Parameter		Data		
Flash Point		215 C		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and		no; not specified; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; NR; NR		
System		Not Reported		
Standard Deviation Results	S	Not Reported		
Results Details		Not Reported		
			EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The 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 Reliabil	lity			
Domain 2. Test Renaon	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	weare 5.	(Method Objectivity)	Wediam	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				
zomani o. omoi	Metric 5:	Databases	Medium	The data is from a publicly available secondary source without peer-review.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: HSDB (Hazardous Substances Data Bank). 2015. Hazardous Substances Data Bank online database, Toxnet Toxicology Data Network, U.S. National Library of Medicine. Available at: http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB.

Study Citation: OECD Harmonized Template:	ECJRC, (2008) Flash Point	. European Union risk assessment report	: Bis(2-ethylhexyl)phth	nalate (DEHP).
HERO ID:	1614673			
			EXTRACTION	
Parameter		Data		
Flash Point		200 C		
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	no; experimental; DIN 51758		
Solvent, Reactivity, Storag		NR; NR; NR		
Radiolabel, Source, State,		NR; NR; liquid; NR		
System		Not Reported		
Standard Deviation Results	S	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 Reliabil	ity			
	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	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 Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Riddick JA, Bunger WB and Sakano TK (1986) Organic Solvents: Physical Properties and Methods of Purification Techniques of Chemistry, 4th edition, New York, Wiley-Interscience 2a, 443.

Study Citation: OECD Harmonized	Elsevier, (2021) Flash Point	). Reaxys: physical-chemical property data	a for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
Template:				
HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
Flash Point		216 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
System		Not Reported		
Standard Deviation Results	<b>.</b>	Not reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Patent; Eastman Chemical Company; Boppana, Venkata Bharat Ram; DeLoach, Joseph Alexander; Burk, Christopher Harlan; (9 page.); US9340658; (2016); (B2) English

Study Citation: OECD Harmonized	NICNAS, (200 Flash Point	8). Existing chemical hazard assessmen	nt report: Diethylhexyl pl	hthalate.
Template: HERO ID:	5178600			
			EXTRACTION	
Parameter		Data		
Flash Point		196 C		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and	Guideline	no; not specified; not reported		
Solvent, Reactivity, Storag	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; liquid; NR		
System		not reported		
Standard Deviation Results	S	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 Reliabil	ity			
	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quali	ty Determi	nation	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Flash Point Diethylhexyl Phthalate HERO ID: 192177 Table: 1 of 1

**Study Citation:** OECD Harmonized NIOSH, (2007). NIOSH pocket guide to chemical hazards.

OECD Harmonized	Flash Point	, 1410511 pocket guide to chemical nazar	<b>G</b> 5.	
Template:				
HERO ID:	192177			
			EXTRACTIO	N
Parameter		Data		
Flash Point		420 - F		
CASRN and Test Material	1	117-81-7; Di(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; open cup		
Solvent, Reactivity, Storag	ge, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	NR; NR; NR; NR Notes: NR		
System		open cup		
Standard Deviation Result	is	NR		
Results Details		NR		
			EVALUATIO	N .
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 Reliabi	lity			
	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: OECD Harmonized	NIOSH, (1988). Occupational safety and health guideline for di-2-ethylhexyl phthalate (DEHP) potential human carcinogen. Flash Point							
Template:	0.407.400							
HERO ID:	8435182							
			EXTRACTIO	N				
Parameter		Data						
Flash Point		= 218 (425) C (F)						
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate						
Confidentiality, Type, and Guideline		none; experimental; not specified						
Solvent, Reactivity, Storag	e, and Stability	Not Reported; Not Reported; Not Reported	ed; Not Reported					
Radiolabel, Source, State,	and Purity	Not Reported; Not Reported; Not Reported	ed; Not Reported					
System		open cup						
Standard Deviation Results	S	not reported						
Results Details		not reported						
			EVALUATIO	N				
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 Reliabil	lity							
	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	N/A	Rating of this factor is not applicable to this kind of information.				

 $<sup>^{\</sup>star}$  Related References: Also reported in HERO ID 6655446

Study Citation:				
OECD Harmonized				

O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517. Flash Point

Template:

Template: HERO ID:	5926381			
			EXTRACTIO	N
Parameter		Data		
Flash Point		206 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and Gu	iideline	None; Experimental; Closed cup		
Solvent, Reactivity, Storage,		NR; NR; NR; NR		
Radiolabel, Source, State, and	d Purity	Not Reported; NR; NR; NR		
System		Not Reported		
Standard Deviation Results		Not reported		
Results Details		206°C (403°F)		
			<b>EVALUATIO</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	y			
•	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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: OECD Harmonized	RSC, (2019). C Flash Point	ChemSpider: Bis-(2-ethylhexyl) phthalate					
Template:	500(0(0						
HERO ID:	5926269						
			EXTRACTION				
Parameter		Data					
Flash Point		207 C					
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate					
Confidentiality, Type, and	Guideline	None; Experimental; Not reported					
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR					
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR					
System		Not Reported					
Standard Deviation Results	3	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 Reliabil	ity						
	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 Qualit	ty Determi	nation	Medium				

<sup>\*</sup> Related References: Alfa Aesar

Study Citation:	RSC, (2019). ChemSpider: Bis-(2-ethylhexyl) phthalate.	
<b>OECD Harmonized</b>	Flash Point	
Template:		
HERO ID:	5926269	
	EXTRACTION	
Parameter	Data	
Flash Point	207.2 C	
CASRN and Test Materia	ial 117-81-7; Bis(2-ethylhexyl)phthalate	

CASKN and Test Material

Confidentiality, Type, and Guideline
Solvent, Reactivity, Storage, and Stability
Radiolabel, Source, State, and Purity
System

Not Reported; NR; NR; NR
Not Reported
Standard Deviation Results
Not reported
Results Details

Not reported
207.2 (405 F)

			<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 Reliab	bility			
	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 reviewer sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

# Overall Quality Determination Medium

<sup>\*</sup> Related References: LabNetwork

Study Citation: Rumble, J. R. (2018). Flammability of chemical substances. :16-16 - 16-32.  OECD Harmonized Flash Point				32.
Template: HERO ID:	6655446			
			EXTRACTIO	N
Parameter		Data		
Flash Point		218 C		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
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	3	Not reported		
Results Details		Not Reported		
			EVALUATIO	N
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 Reliabil	ity			
	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.

High

N/A

High

Data is from a known data-collection, prepared by experts in the field.

Rating of this factor is not applicable to this kind of information.

Page <b>218</b> of <b>247</b>

Domain 3: Other

Metric 5:

Metric 6:

**Overall Quality Determination** 

Databases

Models

Study Citation: OECD Harmonized	CPSC, (2010). Autoflammabili	Toxicity review of Di(2-ethylhexyl) Phthity	alate (DEHP).	
Template: HERO ID:	2525689			
			EXTRACTION	
Parameter		Data		
Auto-flammability		390 C		
CASRN and Test Material		117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR		
System		Not Reported		
Standard Deviation Results	3	Not Reported		
Results Details		also reported as 735 F		
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 Reliabil	ity			
	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qualit	ty Determi	nation	Medium	

<sup>\*</sup> Related References: Citing HSDB, 1990 as cited in ATSDR, 2002 (HERO ID 6817687). Same value reported in HERO ID 8435182.

Study Citation: OECD Harmonized Template:	ECJRC, (2008). European Union risk assessment report: Bis(2-ethylhexyl)phthalate (DEHP). Autoflammability				
HERO ID:	1614673				
			EXTRACTION		
Parameter		Data			
Auto-flammability		370 - 370 C			
CASRN and Test Material		117-81-7; bis(2-ethylhexyl) phthalate			
Confidentiality, Type, and C	Guideline	no; experimental; Not Reported			
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR			
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR			
System		Not Reported			
Standard Deviation Results	3	Not Reported			
Results Details		Ignition temperature			
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	High	Measured data are consistent with the subject chemical substance structural features.	
Domain 2: Test Reliabil	ity				
	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					
Zomani 3. Onoi	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					

<sup>\*</sup> Related References: BASF AG (1994a) Sicherheitsdatenblatt Palatinol AH (17.03.1994)

Diethylhexyl Phthalate Autoflammability HERO ID: 8435182 Table: 1 of 1

**Study Citation:** 

NIOSH, (1988). Occupational safety and health guideline for di-2-ethylhexyl phthalate (DEHP) potential human carcinogen.

**OECD Harmonized** 

Autoflammability

Template:

Parameter			EXTRACTIO	NT
Parameter		D 4	EXTRACTIO	IN .
		Data		
Auto-flammability		390 (735) C (F)		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage, and Stability		Not Reported; Not Reported; Not Report	ted; Not Reported	
Radiolabel, Source, State, and Purity		Not Reported; Not Reported; Not Report	ted; Not Reported	
System		not reported		
Standard Deviation Results	S	not reported		
Results Details		autoignition temperature		
Results Value		Not Reported		
			EVALUATIO	N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
	M-4 4.	(Method Objectivity)	T	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				
Domain 3. Julei	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.

Study Citation: OECD Harmonized Template:	Elsevier, (2021) Viscosity	). Reaxys: physical-chemical property data	ta for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
HERO ID:	5926428			
			EXTRACTIO	N
Parameter		Data		
Viscosity		5.6 - 8.14		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storag	ge, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Temperature		20-25°C		
Test Conditions		Not Reported		
Standard Deviation Result	S	Not Reported		
Results Details		At 20-25°C; 20 values were reported in F measured at non-standard temperatures.	Reaxys; 6 values w	ere reported in the range of 5.6 to 8.14 at 20-25°C; 14 values were outside this range or
			EVALUATIO	N .
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 Reliabi	lity			
	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 Quali	tv Determi	nation	High	

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Study	Citation:	inds, W., Macher, J., First, M. (1982). Size distributions of test aerosols produced from materials other than DOP. Journal of Environmental Sciences
Study	Citation.	sids, w., whether, s., i list, w. (1962). Size distributions of lest delosors produced from materials other than DOI. Journal of Environmental Selences

25(3):20-21.

**OECD Harmonized Template:** 

Viscosity

**HERO ID:** 9429030

EXTRACTION	EXTR	$\mathbf{AC}$	ГЮ	N
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Parameter Data

Viscosity = 82

CASRN and Test Material Not Reported; di(2-ethylhexyl)phthalate Confidentiality, Type, and Guideline none; not specified; not specified

Solvent, Reactivity, Storage, and Stability NR; NR; NR; NR

Radiolabel, Source, State, and Purity NR; Hatco Chemical Corporation, Fords, NJ. FDA approval for use in polymers that contact food.; NR; NR Notes: DEHP

Temperature 20C
Test Conditions not reported
Standard Deviation Results not reported

Results Details units are not defined; reported as 'C'

			<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	Low	Units for measured data are unclear.
Domain 2: Test Relia	bility			
	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:	Mylona, S. K., Assael, M. J., Antoniadis, K. D., Polymatidou, S. K., Karagiannidis, L. (2013). Measurements of the Viscosity of Bis(2-ethylhexyl)
	Cabanata, Cayalama, and Dis(2) athyllhayyd) Dhthalata hatyyaan (202 and 262) V at 0.1 MDa, Jayanal of Chamical and Engineering Data 50(10)(2005-2000)

Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa. Journal of Chemical and Engineering Data 58(10):2805-2808.

**OECD Harmonized** Template:

Viscosity

EXTRA	CTION

Parameter	Data
Viscosity	57.94
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl) phthalate (DEHP)
Confidentiality, Type, and Guideline	None; Experimental; Not Reported
Solvent, Reactivity, Storage, and Stability	None; NR; NR; NR
Radiolabel, Source, State, and Purity	No; Sigma Aldrich; NR; 0.995 (initial mole fraction purity) Notes: no additional purification
Temperature	298.29 K
Test Conditions	Viscosity measured as a function of temperature (283-363K) using a vibrating-wire viscometer.
Standard Deviation Results	Absolute expanded uncertainty $\pm 1.5\%$
Results Details	57.94 mPa.S

			EVALUATIO	N .
Domain		Metric	Rating	Comments
Domain 1: Substance	2			
	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 Relia	ability			
	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.
Overell Oue	lity Dotorm	instion	High	
Overall Quality Determination			ıngır	

Diethylhexyl Phthalate Refractive Index HERO ID: 5926428 Table: 1 of 1

Study Citation: Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7..

Refractive Index

Template: HERO ID:

HERO ID: 5926428

		EXTRACTIO	N
Parameter	Data		
Refractive Index	1.48 - 1.4878		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Temperature	20-25°C		
System	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	20-25°C; 11 values were reported in Restandard temperatures.	axys; 10 values we	ere reported in the range of 1.48 to 1.4878 at 20-25°C; 1 value was measured at non-
Results Details Methods	Not Reported		
Parameter	Not Reported		
		EVALUATIO	N
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.

#### Over an Quanty Determination 11

<sup>\*</sup> Related References: Data range determined from multiple primary sources in REAXYS.

Refractive Index HERO ID: 3540862 Table: 1 of 1 Diethylhexyl Phthalate

Liu, L., Shen, L., Yang, F., Han, F., Hu, P., Song, M. (2016). Determining Phthalic Acid Esters Using Terahertz Time Domain Spectroscopy. Journal of **Study Citation:** 

Applied Spectroscopy 83(4):603-609.

**OECD Harmonized** 

Refractive Index

Template:

EXTRACTION				
Parameter	Data			
Refractive Index	1.535			
CASRN and Test Material	117-81-7; Di-ethylhexyl phthalate			
Confidentiality, Type, and Guideline	None; Experimental; Not reported			
Solvent, Reactivity, Storage, and Stability	99.99% pure alcohol; NR; Room temperature; NR			
Radiolabel, Source, State, and Purity	NR; Dr. Ehrenstorfer GmbH; Liquid; 98.5%			
Temperature	24°C			
System	A split Ti:sapphire mode-lock laser pulse was used to trigger THz pulses that were collected and collimated using a pair of gold coated off-axis parabolic mirrors and transmitted through the sample to be investigated.			
Standard Deviation Results	Not reported			
Results Details	The reference signal is a THz pulse transmitted through the empty crystal cell with a correction applied to account for the effect of the crystal cell absorbing THz waves. The experimental result is entered into a mathematical equation to calculate the refractive index.			
Results Details Methods	Not Reported			
Parameter	Not Reported			

			<b>EVALUATIO</b>	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
Me	etric 1:	Representativeness	High	Data was measured or estimated for the subject chemical substance.
Me	etric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability				
Me	etric 3:	Reliability/Unbiased	High	Methodology clearly stated.
		(Method Objectivity)		
Me	etric 4:	Reliability/Analytical Method	High	Experimental procedures and analytical methods were clearly delineated.
Domain 3: Other				
Me	etric 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.
Me	etric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.

Overall (	Quality	Determination	Higl
Overall (	Quality	Determination	$\mathbf{H}$

Diethylhexyl Phthalate Refractive Index HERO ID: 5926123 Table: 1 of 1

Study Citation: OECD Harmonized Template:	NLM, (2015). I Refractive Inde	PubChem: Hazardous Substance Data Bar x	nk: Bis(2-ethylhe	exyl) phthalate, 117-81-7.
HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
Refractive Index		1.4853		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and C	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage		NR; NR; NR		
Radiolabel, Source, State, a		Not Reported; NR; NR; NR		
Temperature	·	20°C		
System		Not Reported		
Standard Deviation Results		Not Reported		
Results Details		Not Reported		
Results Details Methods		Not Reported		
Parameter		Not Reported		
			EVALUATION	N
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 Reliabil	ity			
	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 Qualit	ty Determi	nation	High	

<sup>\*</sup> Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL. P. 3-54.

Study Citation: OECD Harmonized O'Neil, M. J. (2013). DEHP. 117-81-7. [Bis(2-ethylhexyl) ester]. :517.

Tompletor

Refractive Index

Template: HERO ID:

		EXTRACTIO	N
Parameter	Data	EXTRACTIO	
Refractive Index	1.486		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Temperature	20°C		
System	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
Results Details Methods	Not Reported		
Parameter	Not Reported		
		EVALUATIO	N
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	Medium	There is no indication that the methodology for producing the information was biased
medie 3.	(Method Objectivity)	1,10014111	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 inclu-
			sion 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.
			C + ***********************************
Overall Quality Determ	ination	High	

Study Citation: OECD Harmonized	RSC, (2019). Ch Refractive Index	nemSpider: Bis-(2-ethylhexyl) phthalate		
Template:				
HERO ID:	5926269			
			EXTRACTION	
Parameter		Data		
Refractive Index		1.486		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not reported		
Solvent, Reactivity, Storage		NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	Not Reported; NR; NR; NR		
Temperature	·	Not Reported		
System		Not Reported		
Standard Deviation Results	<b>,</b>	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 Reliabil	ity			
	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 Qualit	ty Determin	nation	Medium	

<sup>\*</sup> Related References: Alfa Aesar

**Study Citation: OECD Harmonized**  Rumble, J. R., (Ed.) (2018). Bis(2-ethylhexyl) phthalate. :3-6. Refractive Index

Template:

		EXTRACTIO	N
Parameter	Data		
Refractive Index	1.4853		
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate		
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		
Temperature	20°C		
System	Not Reported		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
Results Details Methods	Not Reported		
Parameter	Not Reported		
		EVALUATIO	N
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 Determi	nation	High	

Study Citation:	Cousins, A. P., Remberger, M., Kaj, L., Ekheden, Y., Dusan, B., Brorstroem-Lunden, E. (2007). Results from the Swedish National Screening Programme 2006. Subreport 1: Phthalates. GRA and I(GRA and I):39.			
OECD Harmonized	2006. Subrepor Henry's Law	t 1: Phthalates. GRA and I(GRA and I):3	39.	
Template:	1101119 0 24.11			
HERO ID:	675060			
			EXTRACTION	
Parameter		Data		
		2050 42/ 1		
Henry's Law		3.95 Pa x m^3/mol		
CASRN and Test Material	C: 4-1:	117-81-7; di(2-ethylhexyl) phthalate		
Confidentiality, Type, and Confidentiality, Type, and Confidentiality, Storage		none; not specified; Not Reported NR; NR; NR; NR		
Radiolabel, Source, State, a	-	None; NR; NR; NR		
Temperature	and I urity	Not Reported		
рН		Not Reported		
System		Not Reported		
Standard Deviation Results	3	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 or other physical/chemical properties or behaviors.
Domain 2: Test Reliabil	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
2 cmain 5. Calci	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 Oversi	ty Dotorm	nation	Medium	
Overall Quality	ly Determi	เมลนบม	wiediuili	

<sup>\*</sup> Related References: Cousins, I. T., Mackay, D., Parkerton, T. F.. Physical-chemical properties and evaluative fate modelling of phthalate esters. The Handbook of Environmental Chemistry, vol 3Q. 2003. 3:57-84.

Study Citation: Cousins, I., Mackay, D. (2000). Correlating the physical-chemical properties of phthalate esters using the 'three solubility' approach. Chemosphere

41(9):1389-1399. Henry's Law

4159647

OECD Harmonized

Template: HERO ID:

ate:

FYTD	ACTION
LAIN	ACTION

Parameter	Data
Henry's Law	3.95 Pa m3/mol
CASRN and Test Material	117-81-7; Di(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	None; QSAR; Not Reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR Notes: DEHP
Temperature	25°C
pH	Not reported
System	Three solubility approach: a quantitative structure-property relationship; correlations between apparent-solubilities of liquid state compounds in air and water, and molecular structures used to estimate partition coefficient Kaw (air-water)
Standard Deviation Results	Not reported
Results Details	$3.90E-5 \text{ atm m}3/\text{mol}; \log \text{Kaw} = -2.80$
Results Details Methods	Not applicable

EVALUATION				
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	Data are 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 Reliabi	ility			
	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	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	High	The model had a defined, unambiguous endpoint AND the model performance was known and $r2>0.7$ , $q2>0.5$ , and $SE<0.3$ .

## Overall Quality Determination High

Study Citation: OECD Harmonized	Elsevier, (2021 Henry's Law	). Reaxys: physical-chemical property data	a for Di(2-ethyll	nexyl) phthalate. CAS Registry Number: 117-81-7
Template: HERO ID:	5926428			
ILKO ID.	3720120		EXTRACTIO	N
Parameter		Data	EXTRACTIO	IN .
1 ai ainetei		Data		
Henry's Law		1.71E-5 atm-m3/mol		
CASRN and Test Material	[	117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; calculation; Not Reported		
Solvent, Reactivity, Storag		NR; NR; NR; NR		
Radiolabel, Source, State,		Not Reported; NR; NR; NR		
Temperature	·	Not reported		
pН		Not Reported		
System		Not Reported		
Standard Deviation Result	S	Not Reported		
Results Details		Not Reported		
Results Details Methods		Not Reported		
			EVALUATIO	
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 Reliabi	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 inclu-
				sion 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.
0 110 1	4 D 4 .		TT* 1	
<b>Overall Quali</b>	ty Determi	nation	High	

<sup>\*</sup> Related References: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb.4; (1997); p. 667 - 749

Study Citation:	EPA,, Danish (2011). Annex XV restriction report: Proposal for a restriction, version 2. Substance name: bis(2-ehtylhexyl)phthlate (DEHP), benzyl butyl
	phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP).

OECD Harmonized

Henry's Law

Template: HERO ID:

		EXTRACTION	
Parameter	Data	EXTRACTION	
Henry's Law	4.43 - Pa. m3/mol		
CASRN and Test Material	85-68-7; NR		
Confidentiality, Type, and Guideline	No; 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 deg C		
pН	Not Reported		
System	NR		
Standard Deviation Results	Not Reported		
Results Details	Not Reported		
Results Details Methods	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	Medium	There is no indication that the methodology for producing the information was biased
	(Method Objectivity)		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.
O	P 4. ·	N / - J 2	
Overall Quality Determi	เกลนอก	Medium	

Diethylhexyl Phthalate Henry's Law HERO ID: 807140 Table: 1 of 1

Study Citation: Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology

83(2):168-173.

OECD Harmonized

Henry's Law

**Template:** 

**HERO ID:** 807140

EXTR	ACT	ION

	EXTRACTION
Parameter	Data
Henry's Law	Not Reported
CASRN and Test Material	117-81-7; di(2-ethylhexyl) phthalate
Confidentiality, Type, and Guideline	none; QSAR; Quantitative Structure-Property relationship model for estimation of log Kaw
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; NR Notes: DEHP
Temperature	Not Reported
pН	Not Reported
System	Kaw = S(A)/Sw where $S(A)$ is the solubility in air and $Sw$ is the solubility in water
Standard Deviation Results	Not Reported
Results Details	Log Kaw= -2.74
Results Details Methods	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 Relia	bility			
	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	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 6:	Models	Medium	Modeled data compared well to other data.

## **Overall Quality Determination**

### Medium

Study Citation:			used as plastic additives	s: Volume 1. Ecotoxicological risk assessment, Volume 2. Comparisons of
OECD Harmonized	Henry's Law	ffects. GRA and I(GRA and I):284.		
Template:	,			
HERO ID:	680058			
			EXTRACTION	
Parameter		Data		
Henry's Law		3.0x10-7 atm-m3/mol		
CASRN and Test Material		117-81-7; di(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	no; not specified; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State, a	and Purity	NR; NR; liquid; NR Notes: DEHP		
Temperature		Not Reported		
pН		Not Reported		
System		Not Reported		
Standard Deviation Results	S	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	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliabil	ity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Qualit	ty Determi	ination	Medium	

<sup>\*</sup> Related References: References Volskay. Victor T., Jr., Grady, C. P. Leslie. Jr. 1990.; Respiration inhibition kinetic analysis.; Water Res., 24(7), 863-74.

Study Citation: Meylan, W. M., Howard, P. H. (1991). Bond contribution method for estimating Henry's law constants. Environmental Toxicology and Chemistry

10(10):1283-1293.

OECD Harmonized

Henry's Law

**Template:** 

**HERO ID:** 658013

EXTRACTION					
Parameter	Data				
Henry's Law	3.316				
CASRN and Test Material	117-81-7; Structural Estimation				
Confidentiality, Type, and Guideline	None; QSAR; Bond Contribution Estimation Method				
Solvent, Reactivity, Storage, and Stability	NA; NA; NA				
Radiolabel, Source, State, and Purity	NA; NA; NA Notes: Estimation based on functional groups in chemical				
Temperature	25°C				
pH	Not applicable				
System	Bond contribution values for estimating log water-to-air partition coefficients (unitless log reciprocal of HLC) from chemical structure determined using 59 chemical bonds by least square analysis of known Henry Law constants for 345 organic chemicals				
Standard Deviation Results	correlation coefficients 0.95 to 0.97 with standard deviation of 0.45 and 0.34 log units, respectively				
Results Details	3.316				
Results Details Methods	Bond contribution values; compounds split into a summation of individual bonds which are set equal to known experimentally measured log water-to-air partition coefficients				

		<b>EVALUATIO</b>	N
Domain	Metric	Rating	Comments
Domain 1: Substance			
Metric 1:	Representativeness	High	Data are estimated for the subject chemical substance.
Metric 2:	Appropriateness	High	Data 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)	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 metric is not applicable to this type of study.
Domain 3: Other			
Metric 5:	Databases	High	Validation set and measured data from recognized, peer-reviewed data collection.
Metric 6:	Models	High	The model had a defined, unambiguous endpoint AND the model performance was known and $r2 > 0.7$ , $q2 > 0.5$ , and $SE < 0.3$ (ECHA, 2016).

## Overall Quality Determination High

Study Citation: OECD Harmonized	NICNAS, (200 Henry's Law	8). Existing chemical hazard assessmen	t report: Diethylhexyl p	hthalate.
Template:	Helliy S Law			
HERO ID:	5178600			
			EXTRACTION	
Parameter		Data	EATRACTION	
Henry's Law		1.71X10-5 atm-m3/mol		
CASRN and Test Material		117-81-7; diethylhexyl phthalate		
Confidentiality, Type, and	Guideline	no; not specified; not reported		
Solvent, Reactivity, Storag		NR; NR; NR		
Radiolabel, Source, State,		NR; NR; liquid; NR		
Temperature	and I drity	25°C		
рН		not reported		
System		not reported		
Standard Deviation Results	s	Not Reported		
Results Details		Not Reported		
Results Details Methods		not reported		
ъ.		20.0	EVALUATION	
Domain		Metric	Rating	Comments
Domain 1: Substance	36.11	The state of the s	TT' 1	
	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 Reliabil	litv			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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				
<del></del>	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 includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
O	4 Do4		N/I = 12	
Overall Quali	ty Determi	nauon	Medium	

<sup>\*</sup> Related References: referenced to HEROID: 6817687 ATSDR (2002) Toxicological profile for di(2-ethylhexyl) phthalate. Agency for Toxic Substances and Disease Registry. U.S. Department of Health and Human Services. Public Health Service.

Study Citation: OECD Harmonized	The Massachus Henry's Law	etts Toxics Use Reduction Institute (2006	). Five chemical	s alternatives assessment study.
Template:	Tioniy 3 Law			
HERO ID:	7500055			
			EXTRACTIO	N
Parameter		Data		
Henry's Law		1.4E-4 atm-m3/mole		
CASRN and Test Material		117-81-7; Di-ethylhexyl phthalate		
Confidentiality, Type, and	Guideline	none; not specified; not specified		
Solvent, Reactivity, Storage		Not Reported; Not Reported; Not Report	ed: Not Reported	
Radiolabel, Source, State, a		Not Reported; Not Reported; Not Report	_	
Temperature		not specified	1	
рН		not specified		
System		not specified		
Standard Deviation Results	S	not specified		
Results Details		not specified		
Results Details Methods		not specified		
			EVALUATIO	
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 Reliabil	lity			
	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.
Overell Ougli	ty Dotormi	nation	Uigh	
Overall Qualit	ty Determin	เกลนเบเเ	High	

<sup>\*</sup> Related References: Source cited: United States Environmental Protection Agency (USEPA) 2005, Technical Factsheet on: Di (2-ethylhexyl)phthalate (DEHP), Available: http://www.epa.gov/OGWDW/dwh/t-soc/dehp.html [2006, February13, 2006]

Diethylhexyl Phthalate Dielectric Constant HERO ID: 5926428 Table: 1 of 1

Study Citation:	Elsevier, (2021). Reaxys: physical-chemical property data for Di(2-ethylhexyl) phthalate. CAS Registry Number: 117-81-7
OECD Harmonized	Dielectric Constant

HERO ID: 5926428					
EXTRACTION					
Parameter	Data				
CASRN and Test Material	117-81-7; Bis(2-ethylhexyl)phthalate				
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				
Dielectric Constant	5.06				
Temperature	25°C				
System	Not Reported				
Results Value	Not Reported				
Results Details	@ 25°C; 3 values were reported in Reaxy	ys; 2 values were o	outside this range or measured at unreported or non-standard temperatures.		
		EVALUATIO	N		
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	Medium	There is no indication that the methodology for producing the information was biased		
Metric 4:	(Method Objectivity)	Madiana	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

<sup>\*</sup> Related References: French; Singer; Journal of the Chemical Society; (1956); p. 1424,1427

Diethylhexyl Phthalate Dielectric Constant HERO ID: 5926123 Table: 1 of 1

Study Citation: OECD Harmonized	NLM, (2015). I Dielectric Cons	PubChem: Hazardous Substance Data Ba tant	nk: Bis(2-ethylho	exyl) phthalate, 117-81-7.
Template:				
HERO ID:	5926123			
			EXTRACTIO	N
Parameter		Data		
CASRN and Test Material		117-81-7; Bis(2-ethylhexyl)phthalate		
Confidentiality, Type, and	Guideline	None; Experimental; Not Reported		
Solvent, Reactivity, Storage	e, and Stability	NR; NR; NR; NR		
Radiolabel, Source, State,	and Purity	Not Reported; NR; NR; NR		
Dielectric Constant		4.3		
Temperature		100°C		
System		Not Reported		
Results Value		Not Reported		
Results Details		Not Reported		
			EVALUATIO	N N
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 Reliabil	lity			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		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 Quali	ty Determi	nation	High	

<sup>\*</sup> Related References: Kirk-Othmer Encyclopedia of Chemical Technology. 1978. 3rd Edition. Volumes 1-26. New York, NY: John Wiley and Sons. P. V13 553.

Study Citation: NTP, (1982). NTP technical report on the carcinogenesis bioassay of di(2-ethylhexyl)phthalate (CAS no. 117-81-7) in F344 rats and B6C3F1 mice (feed

study).

**OECD Harmonized** 

UV and Visible Absorption

Template:

EXTRACTION			
Parameter	Data		
CASRN and Test Material	117-81-7; Not Reported		
Confidentiality, Type, and Guideline	Not Reported; Not Reported		
Solvent, Reactivity, Storage, and Stability	NR; NR; NR		
Radiolabel, Source, State, and Purity	NR; NR; NR		
Wave Length Range	226 - 281		
Light Source, Optical Path Length, and Optical Cell Type	Carry 118; Not Reported; Not Reported		
Test Concentration and Reference Substance	Not Reported; Not Reported		
Solvent and Solvent pH	95% ethanol; Not Reported		
Blank Control, Maxima, Lambda Max, and Peak Band Width	Not Reported; 3; 226, 247, and 281 (shoulder); nm		
Measured Absolute Value and Molar Coefficient	Not Reported; $\varepsilon$ x 10-3: 8.7 $\pm$ 0.04, 1.29 $\pm$ 0.004, and 1.171 $\pm$ 0.002		
Results Details	No absorbance between 350 and 800 nm at a concentration range of 0.2 mg/mL.		

			<b>EVALUATIO</b>	N
Domain		Metric	Rating	Comments
Domain 1: Substance				
	Metric 1:	Representativeness	High	The 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 Reliab	oility			
	Metric 3:	Reliability/Unbiased	Medium	There is no indication that the methodology for producing the information was biased
		(Method Objectivity)		towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Based on the experimental details provided the analytical method was likely appropriate.
Domain 3: Other				
	Metric 5:	Databases	High	The data are from a primary source.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Qual	ity Determ	ination	High	

UV and Visible Absorption Diethylhexyl Phthalate HERO ID: 697784 Table: 1 of 1

Yu, O., Chung, J., Kwak, S. (2008). Reduced migration from flexible poly(vinyl chloride) of a plasticizer containing beta-cyclodextrin derivative. Environ-**Study Citation:** 

mental Science & Technology 42(19):7522-7527. UV and Visible Absorption

**OECD Harmonized** 

**Template:** 

	EXTRACTION				
Parameter	Data				
CASRN and Test Material	Not Reported; Not Reported				
Confidentiality, Type, and Guideline	Not Reported; experimental; Absorption peaks of DEHP measured				
Solvent, Reactivity, Storage, and Stability	An extraction solution consisting of water and ethanol (123.77:100 by volume ratio); Not Reported; Not Reported; Not Reported				
Radiolabel, Source, State, and Purity	Not Reported; LG Chem. Ltd., Korea.; Not Reported; Not Reported				
Wave Length Range	Not Reported				
Light Source, Optical Path Length, and Optical Cell Type	Not Reported; Not Reported				
Test Concentration and Reference Substance	Not Reported; Not Reported				
Solvent and Solvent pH	Not Reported; Not Reported				
Blank Control, Maxima, Lambda Max, and Peak Band Width	Not Reported; Not Reported; UV absorbance = 272 nm (max); Not Reported				
Measured Absolute Value and Molar Coefficient	Not Reported; Not Reported				
Results Details	UV-vis spectra reported in Figure S7; Studied at a range of concentrations 20 mg/100 mL, 10 mg/100 mL, 5 mg/100 mL, 2 mg/100 mL, 1 mg/100 mL				

			EVALUATIO	N
Domain		Metric	Rating	Comments
Domain 1: Substance	e			
	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 Relia	ability			
	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 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.

Diethylhexyl Phthalate UV and Visible Absorption HERO ID: 697784 Table: 1 of 1

#### ... continued from previous page

Study Citation: Yu, O., Chung, J., Kwak, S. (2008). Reduced migration from flexible poly(vinyl chloride) of a plasticizer containing beta-cyclodextrin derivative. Environ-

mental Science & Technology 42(19):7522-7527.

**OECD Harmonized Template:** 

UV and Visible Absorption

		EVALUATION		
Domain	Metric	Rating	Comments	
Overall Quality Determination		High		

Diethylhexyl Phthalate Other Properties HERO ID: 807140 Table: 1 of 1

**Study Citation:** Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology

83(2):168-173.

**OECD Harmonized Template:** 

**Parameter** 

Other Properties

**HERO ID:** 807140

**EXTRACTION** 

Data

CASRN and Test Material 117-81-7; di(2-ethylhexyl) phthalate

Confidentiality, Type, and Guideline none; QSAR; Quantitative Structure-Property relationship model for estimation of log Koa

Solvent, Reactivity, Storage, and Stability NR; NR; NR; NR

Radiolabel, Source, State, and Purity NR; NR; NR; NR Notes: DEHP

Results Value Log Koa = 10.13

Results Details Koa = So/S(A) where So is solubility in octanol and S(A) is the solubility in air

Results Remarks 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 Reliab	oility			
	Metric 3:	Reliability/Unbiased	N/A	Rating of this factor is not applicable to this kind of information.
		(Method Objectivity)		
	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	Medium	Modeled data compared well to other data.

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

#### PUBLIC RELEASE DRAFT May 2025

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	
Koa	Octanol-Air partition coefficient	
Kow	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)	
pН	Negative base 10 Log of Hydrogen Ion (H+) Concentration in Aque-	
	ous Solution	
pKa	Negative base 10 Log of Acid Dissociation Constant (Ka)	
RIVM	National Institute for Public Health and the Environment (Dutch: Ri-	
	jksinstituut voor Volksgezondheid en Milieu)	
-	Continued on next page	

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## List of Abbreviations and Acronyms for Data Quality Evaluation and Extraction Tables

#### ... continued from previous page

PUBLIC RELEASE DRAFT

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