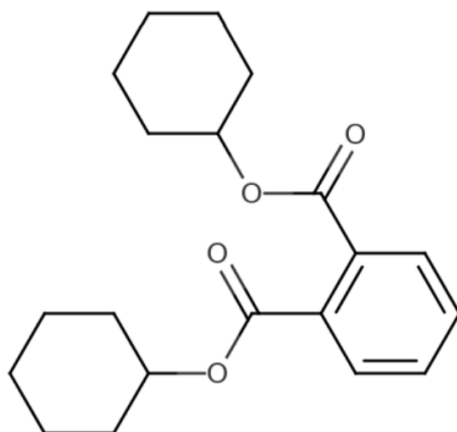


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**Data Quality Evaluation and Data Extraction Information for  
Physical and Chemical Properties for  
Dicyclohexyl Phthalate (DCHP)  
(1,2- Benzenedicarboxylic acid, 1,2-dicyclohexyl ester)**

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

**CASRN: 84-61-7**



*December 2025*

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This supplemental file contains information regarding the data extraction and evaluation results for data sources that were considered for the *Risk Evaluation for Dicyclohexyl Phthalate (DCHP)* 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 *Risk Evaluation for Dicyclohexyl Phthalate (DCHP) – Systematic Review Protocol*. 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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8486306	Haz-Map, (2022). Haz-Map: Hazardous Agents: Dicyclohexyl phthalate.	6
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5926115	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.	8
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5926419	Elsevier, (2019). Reaxys: physical-chemical property data for dicyclohexyl phthalate. CAS Registry Number: 84-61-7..	10
5348255	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.	11
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3688160	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.	19
5348255	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.	20
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5926260	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.	22
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3688160	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.	23
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5926260	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.	27
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5926419	Elsevier, (2019). Reaxys: physical-chemical property data for dicyclohexyl phthalate. CAS Registry Number: 84-61-7..	29

<b>5433544</b>	Gobble, C., Chickos, J., Verevkin, S. P. (2014). Vapor pressures and vaporization enthalpies of a series of dialkyl phthalates by correlation gas chromatography. <i>Journal of Chemical and Engineering Data</i> 59(4):1353-1365.	<b>30</b>
<b>807140</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. <i>Bulletin of Environmental Contamination and Toxicology</i> 83(2):168-173.	<b>31</b>
<b>10225345</b>	NIST, (2022). NIST Chemistry WebBook. Dicyclohexyl phthalate (84-61-7). Standard Reference Database No. 69.	<b>32</b>
<b>5926115</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.	<b>33</b>
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<b>1322045</b>	Cao, X. L. (2010). Phthalate esters in foods: Sources, occurrence, and analytical methods. <i>Comprehensive Reviews in Food Science and Food Safety</i> 9(1):21-43.	<b>35</b>
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<b>807140</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. <i>Bulletin of Environmental Contamination and Toxicology</i> 83(2):168-173.	<b>37</b>
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<b>5926260</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.	<b>39</b>
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<b>3688160</b>	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.	<b>41</b>
<b>5353181</b>	EC/HC, (2017). Draft screening assessment: Phthalate substance grouping.	<b>43</b>
<b>7401366</b>	Hollifield, H. C. (1979). Rapid nephelometric estimate of water solubility of highly insoluble organic chemicals of environmental interest. <i>Bulletin of Environmental Contamination and Toxicology</i> 23(4-5):579-586.	<b>44</b>
<b>807140</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. <i>Bulletin of Environmental Contamination and Toxicology</i> 83(2):168-173.	<b>45</b>
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<b>5926115</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.	<b>51</b>
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<b>807140</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.	<b>52</b>
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<b>807140</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.	<b>53</b>
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<b>Study Citation:</b>	Haz-Map, (2022). Haz-Map: Hazardous Agents: Dicyclohexyl phthalate.
<b>OECD Harmonized Template:</b>	Physical Form or State
<b>HERO ID:</b>	8486306

EXTRACTION	
Parameter	Data
CASRN and Test Material	84-61-7; Dicyclohexyl phthalate
Confidentiality, Type, and Guideline	No; not specified; Not Reported
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported
Results Value	white solid
Results Details	Not Reported

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

## Overall Quality Determination

**High**

\* Related References: Citing Hawley (no year)

<b>Study Citation:</b>	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.
<b>OECD Harmonized Template:</b>	Physical Form or State
<b>HERO ID:</b>	5348255

EXTRACTION	
Parameter	Data
CASRN and Test Material	84-61-7; Dicyclohexyl 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 Value	solid prisms
Results Details	CRC reports as pr (al)

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

## Overall Quality Determination

**High**

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Physical Form or State			
<b>HERO ID:</b>	5926115			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 Value	solid			
Results Details	Not Reported			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available and peer-reviewed database.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
<b>Overall Quality Determination</b>		<b>High</b>		

\* Related References: Lewis, R.J. Sr (Ed.). 1997. Hawley’s Condensed Chemical Dictionary. 13th Edition. New York, NY: John Wiley & Sons, Inc. p. 411



Study Citation:	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
OECD Harmonized Template:	Physical Form or State			
HERO ID:	5926115			
EXTRACTION				
Parameter	Data			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	white, granular solid; mildly aromatic odor			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	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.
	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 publicly available and peer-reviewed database.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Lewis, R.J. Sr (Ed.). 1997. Hawley’s Condensed Chemical Dictionary. 13th Edition. New York, NY: John Wiley & Sons, Inc. p. 411

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for dicyclohexyl phthalate. CAS Registry Number: 84-61-7..
<b>OECD Harmonized Template:</b>	Melting Point
<b>HERO ID:</b>	5926419

EXTRACTION	
Parameter	Data
Melting Point	60.2 - 66 °C
CASRN and Test Material	84-61-7; Dicyclohexyl 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	Measured conditions were not reported; 6 values were reported in Reaxys; 6 of these values were reported in the range of 60.2 to 66°C; 0 data points were outside the range.
Standard Deviation Results	Not Reported
Results Details	Not Reported

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

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

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

<b>Study Citation:</b>	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5348255			
EXTRACTION				
Parameter	Data			
Melting Point	66 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926115			
EXTRACTION				
Parameter	Data			
Melting Point	66 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 3-170.

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926260			
EXTRACTION				
Parameter	Data			
Melting Point	63 - 67 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	Several values reported from other secondary sources: 65°C; 62-64°C; 66°C			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: Alfa Aesar; TCI; Merck Millipore; Jean-Claude Bradley Open Melting Point Dataset; LabNetwork

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926147			
EXTRACTION				
Parameter	Data			
Melting Point	63 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: Merck Millipore

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926147			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Melting Point	66 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
<b>Overall Quality Determination</b>		<b>Medium</b>		

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

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926147			
EXTRACTION				
Parameter	Data			
Melting Point	66 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available database that provides references to the original, peer-reviewed source.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: PhysProp



<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926147			
EXTRACTION				
Parameter	Data			
Melting Point	65 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: Alfa Aesar

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Melting Point			
<b>HERO ID:</b>	5926147			
EXTRACTION				
Parameter	Data			
Melting Point	65 °C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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 (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: TCI

<b>Study Citation:</b>	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.
<b>OECD Harmonized Template:</b>	Boiling Point
<b>HERO ID:</b>	3688160

EXTRACTION	
Parameter	Data
Boiling Point	220 - 230 C
CASRN and Test Material	84-61-7; dicyclohexyl 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; solid; NR
Standard Deviation Results	Not Reported
Results Details	Not Reported

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

## Overall Quality Determination

**Medium**

\* Related References: cites: European Commission. 2000. IUCLID Dataset. Ispra (IT): European Commission, Joint Research Centre, Institute for Health and Consumer Protection, European Chemicals Bureau. Available from: <http://esis.jrc.ec.europa.eu/> and Haynes WM, Lide DR. 2010. CRC Handbook of Chemistry and Physics. 91st edition. 2010-2011. Boca Raton (FL): CRC Press, Taylor & Francis Group.

<b>Study Citation:</b>	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.			
<b>OECD Harmonized Template:</b>	Boiling Point			
<b>HERO ID:</b>	5348255			
EXTRACTION				
Parameter	Data			
Boiling Point	225 C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	@ 4 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’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a peer-reviewed data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Boiling Point			
<b>HERO ID:</b>	5926115			
EXTRACTION				
Parameter	Data			
Boiling Point	225 - C			
CASRN and Test Material	84-61-7; Dicyclohexyl phthalate			
Confidentiality, Type, and Guideline	None; experimental; NR			
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR			
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: NR			
Standard Deviation Results	NR			
Results Details	Reported as 224 @ 4 mm Hg; however, reviewing the value should be 225 @ 4 mm Hg based on the cited source.			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a peer-reviewed data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Citing HERO ID 5348255 (and reported in entry for HERO ID 5348255).

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	Boiling Point			
<b>HERO ID:</b>	5926260			
EXTRACTION				
Parameter	Data			
Boiling Point	426.7 - 476.9 C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	At 760 mm Hg; 200-235 C at 4 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’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: LabNetwork

<b>Study Citation:</b>	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.			
<b>OECD Harmonized Template:</b>	Density			
<b>HERO ID:</b>	3688160			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Density	787 kg/m3			
CASRN and Test Material	84-61-7; dicyclohexyl 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; solid; NR			
Density Type	density			
System	Not Reported			
Temperature	not reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

\* 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](http://www.echa.europa.eu/information-on-chemicals/registered-substances)

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	Density			
<b>HERO ID:</b>	5926260			
EXTRACTION				
Parameter	Data			
Density	= 1.383 - g/mL			
CASRN and Test Material	84-61-7; 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; Not Reported			
Density Type	density			
System	Not Reported			
Temperature	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical 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	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 Quality Determination		Medium		

\* Related References: Alfa Aesar



<b>Study Citation:</b>	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.
<b>OECD Harmonized Template:</b>	Density
<b>HERO ID:</b>	5348255

EXTRACTION	
Parameter	Data
Density	1.383 g/cm3
CASRN and Test Material	84-61-7; Dicyclohexyl 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
Standard Deviation Results	Not Reported
Results Details	20°C

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

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

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Density			
<b>HERO ID:</b>	5926115			
EXTRACTION				
Parameter	Data			
Density	1.383 g/cm3			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
Standard Deviation Results	Not Reported			
Results Details	20°C			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a peer-reviewed data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Haynes, W.M. (Ed.) CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-2015, p. 3-170.

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	Density			
<b>HERO ID:</b>	5926260			
EXTRACTION				
<b>Parameter</b>	<b>Data</b>			
Density	1.383 g/cm3			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: Alfa Aesar

<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.			
<b>OECD Harmonized Template:</b>	Vapor Pressure			
<b>HERO ID:</b>	1322045			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Vapor Pressure	13.3 Pa			
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR; NR			
Temperature	150°C			
System	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	Medium	Measured data are outside the range of environmental conditions.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased toward a particular outcome.
	Metric 4:	Reliability/Analytical Method	Low	The vapor pressure was measured at elevated non-standard temperature.
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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

<b>Study Citation:</b>	Elsevier, (2019). Reaxys: physical-chemical property data for dicyclohexyl phthalate. CAS Registry Number: 84-61-7..
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5926419

EXTRACTION	
Parameter	Data
Vapor Pressure	9.0009E-9 - 6.0006E-7 mm Hg
CASRN and Test Material	84-61-7; Dicyclohexyl 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	24.99°C
System	Not Reported
Standard Deviation Results	Not Reported
Results Details	2 data points were reported in Reaxys; 2 values were reported at 9.0009E-9 to 6.0006E-7 torr at 24.99°C.

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

## Overall Quality Determination

**High**

\* Related References: Gobble, Chase; Chickos, James; Verevkin, Sergey P.; Journal of Chemical and Engineering Data; vol. 59; nb. 4; (2014); p. 1353 - 1365

<b>Study Citation:</b>	Gobble, C., Chickos, J., Verevkin, S. P. (2014). Vapor pressures and vaporization enthalpies of a series of dialkyl phthalates by correlation gas chromatography. Journal of Chemical and Engineering Data 59(4):1353-1365.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5433544

EXTRACTION	
Parameter	Data
Vapor Pressure	8.0E-5 Pa
CASRN and Test Material	84-61-7; Dicyclohexyl phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	NR; NR; NR; NR
Radiolabel, Source, State, and Purity	No; Aldrich; NR; Mass fraction: 0.99
Temperature	298.15 K
System	Correlation Gas Chromatography
Standard Deviation Results	Not specified; however, uncertainties in results were evaluated
Results Details	liquid phase vapor pressure; solid vapor pressure reported as 0.012E-4 Pa. Manuscript authors erroneously omitted "-" from superscript in Table 19: "p·10 <sup>6</sup> /Pa" should be written as "p·10 <sup>-6</sup> /Pa". Same issue with Table 22.

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.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	The analytical method is non-standard but is expected to be appropriate.
Domain 3: Other	Metric 5:	Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6:	Models	N/A	This metric is not applicable to this type of study.

## Overall Quality Determination

**High**

<b>Study Citation:</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	807140

EXTRACTION	
Parameter	Data
Vapor Pressure	7.10X10 <sup>-4</sup> Pa
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR Notes: DCHP
Temperature	Not Reported
System	Predictive model developed using gas law: $S(A) = P(\text{liquid substance})/RT$ where R= gas constant (8.314 Pa m <sup>3</sup> mol <sup>-1</sup> K <sup>-1</sup> ) and T = 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 Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	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 r <sup>2</sup> > 0.7, q <sup>2</sup> > 0.5, and SE < 0.3 (ECHA, 2016).

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

<b>Study Citation:</b>	NIST, (2022). NIST Chemistry WebBook. Dicyclohexyl phthalate (84-61-7). Standard Reference Database No. 69.			
<b>OECD Harmonized Template:</b>	Vapor Pressure			
<b>HERO ID:</b>	10225345			
EXTRACTION				
Parameter	Data			
Vapor Pressure	Not Reported			
CASRN and Test Material	84-61-7; Dicyclohexyl phthalate			
Confidentiality, Type, and Guideline	No; Calculated; Calculated from the vapor pressure data reported by the method of least squares			
Solvent, Reactivity, Storage, and Stability	Not Reported; Not Reported; Not Reported; Not Reported			
Radiolabel, Source, State, and Purity	Not Reported; Not Reported; Not Reported; Not Reported			
Temperature	Not Reported			
System	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	Enthalpy of vaporization = 97 kJ/mol at 406 K based on data from 391 to 475. K.			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: Citing Stephenson, Richard M.; Malanowski, Stanislaw, Handbook of the Thermodynamics of Organic Compounds, 1987, <https://doi.org/10.1007/978-94-009-3173-2>  
HERO ID 10284658.



<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Vapor Pressure			
<b>HERO ID:</b>	5926115			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Vapor Pressure	8.69E-7 mm Hg			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	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.
<b>Overall Quality Determination</b>		<b>High</b>		

\* Related References: Werner AC; Ind Eng Chem 44: 2736-40 (1952)

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..
<b>OECD Harmonized Template:</b>	Vapor Pressure
<b>HERO ID:</b>	5926147

EXTRACTION	
Parameter	Data
Vapor Pressure	8.69E-7 mm Hg
CASRN and Test Material	84-61-7; Dicyclohexyl 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
Standard Deviation Results	Not Reported
Results Details	Not Reported

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

## Overall Quality Determination

**High**

\* Related References: PhysProp. Werner, AC

<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.			
<b>OECD Harmonized Template:</b>	logKow			
<b>HERO ID:</b>	1322045			
EXTRACTION				
Parameter	Data			
log <i>k<sub>ow</sub></i>	3 - 4			
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR; NR			
Temperature	25°C			
System	Not Reported			
pH	Not Reported			
Results Details Method	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased 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.
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 Quality Determination		Medium		

<b>Study Citation:</b>	EC/HC, (2017). Draft screening assessment: Phthalate substance grouping.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5353181

EXTRACTION	
Parameter	Data
log $k_{ow}$	4.82
CASRN and Test Material	84-61-7; Dicyclohexyl 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	not specified
Results Details	not specified

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1:	Representativeness	High
	Metric 2:	Appropriateness	High
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium
	Metric 4:	Reliability/Analytical Method	Low
Domain 3: Other	Metric 5:	Databases	High
	Metric 6:	Models	N/A

## Overall Quality Determination

**High**

\* Related References: Source cited: ECHA c2007-2015b

<b>Study Citation:</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.			
<b>OECD Harmonized Template:</b>	logKow			
<b>HERO ID:</b>	807140			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
log $k_{ow}$	5.64			
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR			
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: DCHP			
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 Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

<b>Study Citation:</b>	NCBI, (2020). PubChem database: compound summary: dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	logKow			
<b>HERO ID:</b>	6629414			
EXTRACTION				
Parameter	Data			
log $k_{ow}$	5.6			
CASRN and Test Material	84-61-7; Dicyclohexyl phthalate			
Confidentiality, Type, and Guideline	None; Calculation; 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	calculated			
EVALUATION				
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	Calculation basis not reported.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	N/A	This metric is not applicable to this calculated data.
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	Low	The model used for the calculation was not reported.
Overall Quality Determination		Low		

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

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	logKow			
<b>HERO ID:</b>	5926260			
EXTRACTION				
<b>Parameter</b>	<b>Data</b>			
log $k_{ow}$	4.602			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	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.
Continued on next page ...				

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.
<b>OECD Harmonized Template:</b>	logKow
<b>HERO ID:</b>	5926260

		EVALUATION		
Domain		Metric	Rating	Comments
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.The analytical method is unknown and there is no indication that a reliable method was used.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.

## Medium

\* Related References: LabNetwork



<b>Study Citation:</b>	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.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	3688160

EXTRACTION	
Parameter	Data
Water Solubility	0.2 mg/L
CASRN and Test Material	84-61-7; dicyclohexyl 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; solid; NR
Temperature	20°C
System	Not Reported
pH	Not Reported
Results Details Method	Not Reported
Standard Deviation Results	Not Reported
Results Details	Not Reported

EVALUATION			
Domain	Metric	Rating	Comments
Domain 1: Substance	Metric 1: Representativeness	High	Data are measured or estimated for the subject chemical substance. Rating of this factor is not applicable to this kind of information.
	Metric 2: Appropriateness	N/A	
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. The analytical method is unknown and there is no indication that a reliable method was used.
	Metric 4: Reliability/Analytical Method	Low	
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. Rating of this factor is not applicable to this kind of information.
	Metric 6: Models	N/A	

## Overall Quality Determination

**Medium**

\* Related References: cites: European Commission. 2000. IUCLID Dataset. Ispra (IT): European Commission, Joint Research Centre, Institute for Health and Consumer Protection, European Chemicals Bureau. Available from: <http://esis.jrc.ec.europa.eu/>

<b>Study Citation:</b>	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.			
<b>OECD Harmonized Template:</b>	Water Solubility			
<b>HERO ID:</b>	3688160			
EXTRACTION				
Parameter	Data			
Water Solubility	4.0 mg/L			
CASRN and Test Material	84-61-7; dicyclohexyl 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; solid; NR			
Temperature	24°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	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: cites: Yalkowsky SH, He Y, Jain P. 2010. Handbook of aqueous solubility data. 2nd edition. Boca Raton (FL): CRC Press, Taylor & Francis Group.

<b>Study Citation:</b>	EC/HC, (2017). Draft screening assessment: Phthalate substance grouping.			
<b>OECD Harmonized Template:</b>	Water Solubility			
<b>HERO ID:</b>	5353181			
EXTRACTION				
Parameter	Data			
Water Solubility	1.01 mg/L			
CASRN and Test Material	84-61-7; dicyclohexyl 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			
Temperature	not specified			
System	not specified			
pH	not specified			
Results Details Method	not specified			
Standard Deviation Results	not specified			
Results Details	not specified			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical substance structural features.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	High	The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Source cited: ECHA c2007-2015b

<b>Study Citation:</b>	Hollifield, H. C. (1979). Rapid nephelometric estimate of water solubility of highly insoluble organic chemicals of environmental interest. Bulletin of Environmental Contamination and Toxicology 23(4-5):579-586.
<b>OECD Harmonized Template:</b>	Water Solubility
<b>HERO ID:</b>	7401366

EXTRACTION	
Parameter	Data
Water Solubility	4.0 mg/L
CASRN and Test Material	Not Reported; Dicyclohexyl phthalate
Confidentiality, Type, and Guideline	None; Experimental; Not reported
Solvent, Reactivity, Storage, and Stability	0.5% or less stock in ethanol or acetone. Adjusted with same solvent until 0.5 -1.5 mL standard produced turbid suspension in 40 mL water.; NR; NR
Radiolabel, Source, State, and Purity	NR; NR; Liquid; NR
Temperature	24±2°C
System	Spectrophotofluorometer with a photomultiplier photometer, potted photomultiplier tube, and 150 W xenon arc lamp; test substance analyzed in standard 1-cm path length quartz fluorescence cuvette.
pH	Not reported
Results Details Method	Study performed at constant slit width, 3,2,2,3,5 slit arrangement. Excitation and emission monochromators set to 600 nm.
Standard Deviation Results	Not Reported
Results Details	40 mL water, 1 mL gum tragacanth solution (stock 0.10 g/L in water) used to prevent suspensions, and test substance added by syringe at 0.1 mL/min were stirred by magnetic stirrer until first signs of turbidity. This was repeated with 0.1 mL increasing quantities of test substance to create 6-8 standards. Turbid solutions allowed to rest for 15 min, resuspended by stirring, and nephelometric measurements were recorded. Calibration curve extrapolated to blank prepared without test substance to determine solubility.

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

## Overall Quality Determination

**High**

\* Related References: Citing METCALF, R.L. and P.Y. LU: "Environmental Distribution and Metabolic Fate of Key Industrial Pollutants and Pesticides in a Model Ecosystem," Research Report No. 69, University of Illinois Water Resources Center, 72 (1973).

<b>Study Citation:</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.			
<b>OECD Harmonized Template:</b>	Water Solubility			
<b>HERO ID:</b>	807140			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Water Solubility	0.35 mg/L			
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR			
Radiolabel, Source, State, and Purity	NR; NR; NR; NR Notes: DCHP			
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 Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Water Solubility			
<b>HERO ID:</b>	5926115			
EXTRACTION				
Parameter	Data			
Water Solubility	4.0 mg/L			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	24°C			
System	Not Reported			
pH	Not reported			
Results Details Method	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Yalkowsky, S.H., He Yan, Jain, P. Handbook of Aqueous Solubility Data Second Edition. CRC Press, Boca Raton, FL 2010. p. 1231

<b>Study Citation:</b>	U.S. EPA, (2019). Chemistry Dashboard Information for Dicyclohexyl phthalate. 84-61-7..			
<b>OECD Harmonized Template:</b>	Water Solubility			
<b>HERO ID:</b>	5926147			
EXTRACTION				
Parameter	Data			
Water Solubility	4.00 mg/L			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	High	Measured data are consistent with the subject chemical’s physical/chemical properties.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available database that provides references to original sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: PhysProp. Yalkowsky, SH and Dannenfelser, RM (1992)

<b>Study Citation:</b>	RSC, (2019). ChemSpider: Dicyclohexyl phthalate.			
<b>OECD Harmonized Template:</b>	Flash Point			
<b>HERO ID:</b>	5926260			
EXTRACTION				
<b>Parameter</b>	<b>Data</b>			
Flash Point	207 C			
CASRN and Test Material	84-61-7; Dicyclohexyl 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	Not reported			
Results Details	Not Reported			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Low	The analytical method is unknown and there is no indication that a reliable method was used.
Domain 3: Other	Metric 5:	Databases	Medium	Data is from a publicly available secondary source with references to non-peer reviewed sources.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		Medium		

\* Related References: LabNetwork



<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Viscosity			
<b>HERO ID:</b>	5926115			
EXTRACTION				
Parameter	Data			
Viscosity	Not Reported			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
Test Conditions	Not Reported			
Standard Deviation Results	Not Reported			
Results Details	solid at 20°C			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a publicly available, peer-reviewed database that provides references to a recognized data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

\* Related References: Flick, E.W. (Ed.). Industrial Solvents Handbook 4th ed. Noyes Data Corporation, Park Ridge, NJ. 1991. p. 636.

<b>Study Citation:</b>	Haynes, W. M. (2014). Dicyclohexyl phthalate. :3-170.			
<b>OECD Harmonized Template:</b>	Refractive Index			
<b>HERO ID:</b>	5348255			
EXTRACTION				
Parameter	Data			
Refractive Index	1.431			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
EVALUATION				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source.
Domain 3: Other	Metric 5:	Databases	High	Data is from a recognized, peer-reviewed data collection.
	Metric 6:	Models	N/A	Rating of this factor is not applicable to this kind of information.
Overall Quality Determination		High		

<b>Study Citation:</b>	NLM, (2024). PubChem: Hazardous Substance Data Bank: Dicyclohexyl phthalate, 84-61-7.			
<b>OECD Harmonized Template:</b>	Refractive Index			
<b>HERO ID:</b>	5926115			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Refractive Index	1.431			
CASRN and Test Material	84-61-7; Dicyclohexyl 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			
<b>EVALUATION</b>				
Domain	Metric	Rating	Comments	
Domain 1: Substance	Metric 1:	Representativeness	High	Data are measured or estimated for the subject chemical substance.
	Metric 2:	Appropriateness	N/A	Rating of this factor is not applicable to this kind of information.
Domain 2: Test Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	Medium	There is no indication that the methodology for producing the information was biased towards a particular product or outcome.
	Metric 4:	Reliability/Analytical Method	Medium	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.
<b>Overall Quality Determination</b>		<b>High</b>		

\* Related References: Haynes, W.M. (Ed.). CRC Handbook of Chemistry and Physics. 95th Edition. CRC Press LLC, Boca Raton: FL 2014-215. p. 3-170.

<b>Study Citation:</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.			
<b>OECD Harmonized Template:</b>	Henry's Law			
<b>HERO ID:</b>	807140			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
Henry's Law	Not Reported			
CASRN and Test Material	84-61-7; dicyclohexyl 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; NR Notes: DCHP			
Temperature	Not Reported			
pH	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= -3.56			
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 (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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

<b>Study Citation:</b>	Lu, C. (2009). Prediction of environmental properties in water-soil-air systems for phthalates. Bulletin of Environmental Contamination and Toxicology 83(2):168-173.			
<b>OECD Harmonized Template:</b>	Other Properties			
<b>HERO ID:</b>	807140			
<b>EXTRACTION</b>				
<b>Parameter</b>	<b>Data</b>			
CASRN and Test Material	84-61-7; dicyclohexyl 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: DCHP			
Results Value	Log Koa = 9.20			
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 Reliability	Metric 3:	Reliability/Unbiased (Method Objectivity)	N/A	Rating of this factor is not applicable to this kind of information.
	Metric 4:	Reliability/Analytical Method	N/A	Rating of this factor is not applicable to this kind of information.
Domain 3: Other	Metric 5:	Databases	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.
<b>Overall Quality Determination</b>		<b>Medium</b>		

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

Term	Definition
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
atm	Atmospheres
atm · m <sup>3</sup> /mol	Atmospheres - cubic meters per mole
C	Celsius
CASRN	Chemical Abstract Service registry number
cP	Centipoise
CRC	CRC Handbook of Chemistry and Physics
DOE	U.S. Department of Energy
ECB	European Chemicals Bureau
EPA	Environmental Protection Agency
F	Fahrenheit
GC	Gas Chromatography
g/cm <sup>3</sup>	Grams per cubic centimeter
GLP	Good Laboratory Practice
HLC	Henry's Law Constant
HPV	High Production Volume
HSDB	Hazard Substance Data Bank
ILO	International Labour Organization
IPCS	International Programme on Chemical Safety
IUCLID	International Uniform Chemical Information Database
K	Kelvin
K <sub>oa</sub>	Octanol-Air partition coefficient
K <sub>ow</sub>	Octanol-Water partition coefficient
mg/L	Milligrams per Liter
mol	Mole
mmHg	Millimeters of Mercury
MS	Mass Spectrometry
N/A	Not Applicable
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NLM	National Library of Medicine
NR	Not Reported
OECD	Organisation for Economic Co-operation and Development
Pa (hPa)	Pascals (hectopascals; 1 hPa = 100 Pa)
pH	Negative base 10 Log of Hydrogen Ion (H <sup>+</sup> ) Concentration in Aqueous Solution
pK <sub>a</sub>	Negative base 10 Log of Acid Dissociation Constant (K <sub>a</sub> )
RIVM	National Institute for Public Health and the Environment (Dutch: Rijksinstituut voor Volksgezondheid en Milieu)

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Term	Definition
RSC	Royal Society of Chemistry
RT	Retention Time
SIDs	Screening Information Dataset
VP	Vapor Pressure
US or USA	United States of America
UV (UV-Vis)	Ultra Violet (UV-Visible)
WHO	World Health Organization