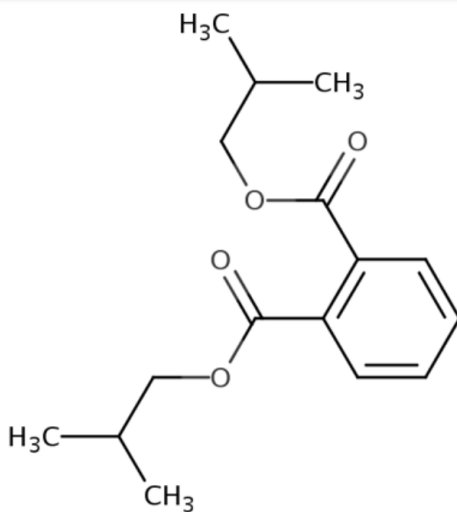

**Data Quality Evaluation and Data Extraction Information for
Physical and Chemical Properties for
Di-isobutyl Phthalate (DIBP)
(1,2-Benzenedicarboxylic acid, 1,2-bis(2-methylpropyl) ester)**

Systematic Review Support Document for the Draft Risk Evaluation

CASRN: 84-69-5



July 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 Diisobutyl Phthalate (DIBP)* 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 Diisobutyl Phthalate (DIBP)*. 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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| 7325405 | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. | 8 |
| 8486308 | Haz-Map, (2021). Hazardous agents: Diisobutyl phthalate. | 9 |
| 5155528 | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | 10 |
| 5926117 | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. | 11 |
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| 7325405 | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. | 17 |
| 5926421 | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. | 18 |
| 5926117 | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. | 19 |
| 5926262 | RSC, (2019). ChemSpider: Diisobutyl phthalate. | 20 |
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| 5926150 | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | 23 |
| 680451 | Wang, L. M., Richert, R. (2007). Glass transition dynamics and boiling temperatures of molecular liquids and their isomers. Journal of Physical Chemistry B 111(12):3201-3207. | 26 |
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| 5926421 | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. | 29 |
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| 5926366 | Rumble, J. R. (2018). Diisobutyl phthalate. :3-20. | 34 |

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| 1322045 | 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. | 40 |
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| 5926421 | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. | 52 |
| 8486308 | Haz-Map, (2021). Hazardous agents: Diisobutyl phthalate. | 53 |
| 3475635 | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. | 54 |
| 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. | 55 |
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| 1322045 | 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. | 57 |
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| 5926421 | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. | 59 |

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| 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. | 62 |
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| Study Citation: | CPSC, (2015). Exposure assessment: Composition, production, and use of phthalates. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5155508 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; di-isobutyl 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 Value | Mostly odorless |
| Results Details | Not Reported |

| | | EVALUATION | | |
|----------------------------|-----------|---|----------|--|
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | The information is related to the subject chemical substance. |
| | Metric 2: | Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | N/A | Rating of this factor is not applicable to this kind of information. |
| | Metric 4: | Reliability/Analytical Method | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 3: Other | Metric 5: | Databases | Medium | The data are from a source that is known but is missing peer-review. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination

High

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

| | |
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| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 7325405 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; NR; liquid; NR |
| Results Value | Colourless 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. |
| 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: Source cited: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

| | |
|----------------------------------|--|
| Study Citation: | Haz-Map, (2021). Hazardous agents: Diisobutyl phthalate. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 8486308 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; Not Reported |
| Confidentiality, Type, and Guideline | Not Reported; Not Reported; Not Reported |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported |
| Results Value | Colorless viscous 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. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | 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 | Medium | The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

| | |
|--------------------------------------|-------------|
| Overall Quality Determination | High |
|--------------------------------------|-------------|

* Related References: Citing ICSC

| | |
|----------------------------------|---|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5155528 |

EXTRACTION

| Parameter | Data |
|---|--|
| CASRN and Test Material | 84-69-5; Not Reported |
| Confidentiality, Type, and Guideline | None; Experimental; Not Reported |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported |
| Results Value | Colorless, clear, mostly odorless, viscous 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 | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | | | |
| | Metric 3: Reliability/Unbiased (Method Objectivity) | N/A | Rating of this factor is not applicable to this kind of information. |
| | Metric 4: Reliability/Analytical Method | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 3: Other | | | |
| | Metric 5: Databases | High | The information or data is from a recognized data collection/repository where data are peer-reviewed by experts in the field, are broadly available to the public for review and use OR includes references to the original sources. |
| | Metric 6: Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination**High**

* Related References: Cites secondary sources: NICNAS (National Industrial Chemicals Notification and Assessment Scheme). (2008) Diisobutyl phthalate. Existing chemical hazard assessment report. Australian Government. Available online at: <http://www.nicnas.gov.au/Publications/CAR/Other/DiBPP%20hazard%20assessment.pdf> (accessed October 13, 2010). HERO ID 5155528. ECHA (European Chemicals Agency). (2009) Annex IV Dossier, proposal for identification of a substance as SVHC/CMR (substances of very high concern/carcinogenic, mutagenic, or toxic to reproduction). http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf HERO ID unknown Not previously extracted. HERO ID in distiller.

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | liquid |
| Results Details | Not Reported |

EVALUATION

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

Overall Quality Determination**High**

* Related References: Lewis, R.J. Sr. 2007. Hawley's Condensed Chemical Dictionary. 15th Edition. John Wiley & Sons, Inc. New York, NY. P. 434.

| | |
|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | yellow |

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

* Related References: Value reported by multiple primary sources in REAXYS.

| | |
|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | colorless |

EVALUATION

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

* Related References: Value reported by multiple primary sources in REAXYS.

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Physical Form or State |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | red |

EVALUATION

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

* Related References: Value reported by multiple primary sources in REAXYS.

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|----------------------------------|---|
| 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 Template: | Melting Point |
| HERO ID: | 3688160 |

| EXTRACTION | |
|---|--------------------------------|
| Parameter | Data |
| Melting Point | -52 °C |
| CASRN and Test Material | 84-69-5; diisobutyl 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 |
| Results Details Methods | Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | Not Reported |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features 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: [ECHA] European Chemicals Agency. c2007–2014b. Registered substances database. Search for CAS RN 84-69-5 [DIBP]. Helsinki (FI): ECHA. [cited 2014 Sept] Available from: http://echa.europa.eu/information-on-chemicals/registered-substances;jsessionid=ADE5DCC9E32E9AC042ACD435168FEB84.live1?p_auth=UvS8Lp1d&p_p_id=registeredsubstances_WAR_regsubsportlet&p_p_lifecycle=1&p_p_state=normal&p_p_mode=view1&p_p_col_pos=1&p_p_col_count=6&_registeredsubstances_WAR_regsubsportlet_javax.portlet.action=registeredSubstancesAction

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| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 3661424 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| Melting Point | -37 °C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | 1,013 hPa |

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

Overall Quality Determination

Low

* Related References: referenced to HEROID: 680273: Annex XV dossier, 2009. Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009.

| | |
|----------------------------------|--|
| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 7325405 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| Melting Point | -37 °C |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; NR; liquid; NR |
| Results Details Methods | at 1013 hPa |
| Standard Deviation Results | not reported |
| Results Details | not reported |

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

Overall Quality Determination

High

* Related References: Source cited: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|--|
| Melting Point | -58 °C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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. |
| 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: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb. 4; (1997); p. 667 - 749

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|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Melting Point | -64 °C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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: Clayton, G.D., Clayton, F.E. (Eds.) 1981. Patty's Industrial Hygiene and Toxicology: Volume 2A, 2B, 2C: Toxicology. 3rd Ed. New York: John Wiley Sons. P. 2345.

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| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 5926262 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Melting Point | -64 °C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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: Biosynth

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|---|---|---|----------|--|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | | | |
| OECD Harmonized Template: | Melting Point | | | |
| HERO ID: | 5155528 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Melting Point | -50 - °C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | No; not specified; NR | | | |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Results Details Methods | Not Reported | | | |
| Standard Deviation Results | Not Reported | | | |
| Results Details | Not Reported | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | 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 secondary sources:European Commission. (2000) Substance ID: 84-69-5. Diisobutyl phthalate. IUCLID Dataset.European Commission. European Chemicals Bureau. Available online at <http://ecb.jrc.ec.europa.eu/iuclid-datasheet/84695.pdf> (accessed April 13, 2011).HEROID 680279

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|---|---|---|----------|--|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | | | |
| OECD Harmonized Template: | Melting Point | | | |
| HERO ID: | 5155528 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Melting Point | -42 - °C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | No; not specified; NR | | | |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Results Details Methods | Not Reported | | | |
| Standard Deviation Results | Not Reported | | | |
| Results Details | Not Reported | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | 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 secondary sources:European Commission. (2000) Substance ID: 84-69-5. Diisobutyl phthalate. IUCLID Dataset.European Commission. European Chemicals Bureau. Available online at <http://ecb.jrc.ec.europa.eu/iuclid-datasheet/84695.pdf> (accessed April 13, 2011).HEROID 680279

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| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 5926150 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Melting Point | -64 °C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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: Jean-Claude Bradley Open Melting Point Dataset

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|---|---|---|----------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | | | |
| OECD Harmonized Template: | Melting Point | | | |
| HERO ID: | 5926150 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Melting Point | -64 °C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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

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|---|---|---|----------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | | | |
| OECD Harmonized Template: | Melting Point | | | |
| HERO ID: | 5926150 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Melting Point | -64 °C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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

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| Study Citation: | Wang, L. M., Richert, R. (2007). Glass transition dynamics and boiling temperatures of molecular liquids and their isomers. Journal of Physical Chemistry B 111(12):3201-3207. |
| OECD Harmonized Template: | Melting Point |
| HERO ID: | 680451 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Melting Point | 191.1 K |
| CASRN and Test Material | 84-69-5; Di-iso-butylphthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not Reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; Stable in temperature ranges to the glass transition temperature |
| Radiolabel, Source, State, and Purity | NR; Aldrich; NR; 99% |
| Results Details Methods | Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | Value is a glass transition temperature. |

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

Overall Quality Determination

High

| | |
|----------------------------------|--|
| Study Citation: | CPSC, (2015). Exposure assessment: Composition, production, and use of phthalates. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5155508 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| Boiling Point | 159 C |
| CASRN and Test Material | 84-69-5; di-isobutyl 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 |
| Standard Deviation Results | Not Reported |
| Results Details | at 4 mm Hg |

| 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 physical 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 | The data are from a source that is known but is missing peer-review. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination

Medium

* 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>

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|----------------------------------|--|
| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 7325405 |

EXTRACTION

| Parameter | Data |
|---|------------------------------------|
| Boiling Point | 320 C |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; NR; liquid; NR |
| 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: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

| | |
|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|---|
| Boiling Point | 295 - 327 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | 5 values were reported in Reaxys; 4 values were reported in the range of 295 to 327 C at unreported pressures; 1 value was reported at non-standard pressure. |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|--|
| Domain 1: Substance | Metric 1: 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.

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|----------------------------------|--|
| Study Citation: | NIST, (2022). NIST Chemistry WebBook. 1,2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester (84-69-5). Standard Reference Database No. 69. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 10225182 |

EXTRACTION

| Parameter | Data |
|---|--|
| Boiling Point | 593 - K |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate |
| Confidentiality, Type, and Guideline | No; Not specified; NR |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | Uncertainty assigned by TRC = 4. K |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|--|
| Domain 1: Substance | Metric 1: Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: Appropriateness | 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 | 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**Low**

* Related References: Citing Haertel, G.H., Low-volatility polar organic solvents for sulfur dioxide, hydrogen sulfide, and carbonyl sulfide., J. Chem. Eng. Data, 1985, 30, 57. HERO ID 2797985.

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Boiling Point | 296.5 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|--|
| Domain 1: Substance | Metric 1: 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.) 2010. CRC Handbook of Chemistry and Physics. 91st Edition. Boca Raton, FL: CRC Press Inc. p. 3-184.

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|----------------------------------|--|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5926262 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Boiling Point | 295.3 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |

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

Overall Quality Determination

Medium

* Related References: Biosynth

| | | | | |
|---|--|---|----------|---|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Boiling Point | | | |
| HERO ID: | 5926262 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Boiling Point | 327 C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | 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

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|----------------------------------|--|
| Study Citation: | Rumble, J. R. (2018). Diisobutyl phthalate. :3-20. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5926366 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Boiling Point | 296.5 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |

EVALUATION

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

Overall Quality Determination**High**

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

EXTRACTION

| Parameter | Data |
|---|-------------------------------------|
| Boiling Point | 296.5 |
| CASRN and Test Material | Not Reported; Di-isobutyl 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 |

EVALUATION

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

Overall Quality Determination**High**

| | |
|----------------------------------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 5926150 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Boiling Point | 296 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|--|
| Domain 1: Substance | Metric 1: 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

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|---|---|---|----------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | | | |
| OECD Harmonized Template: | Boiling Point | | | |
| HERO ID: | 5926150 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Boiling Point | 327 C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | 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

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|---|---|---|----------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | | | |
| OECD Harmonized Template: | Boiling Point | | | |
| HERO ID: | 5926150 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Boiling Point | 327 C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | 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

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| Study Citation: | Wang, L. M., Richert, R. (2007). Glass transition dynamics and boiling temperatures of molecular liquids and their isomers. Journal of Physical Chemistry B 111(12):3201-3207. |
| OECD Harmonized Template: | Boiling Point |
| HERO ID: | 680451 |

EXTRACTION

| Parameter | Data |
|---|--|
| Boiling Point | 552 K |
| CASRN and Test Material | 84-69-5; Di-iso-butylphthalate |
| Confidentiality, Type, and Guideline | None; Calculation; Not Reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; Stable in temperature ranges to the glass transition temperature |
| Radiolabel, Source, State, and Purity | NR; Aldrich; NR; 99% |
| Standard Deviation Results | Not Reported |
| Results Details | Boiling point calculated from experimentally derived relationship to measured glass transition temperature $T_b = 132 + 2.2T_g$ (where $T_g > 45$ K). $T_g = 191.1$ K |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|---|
| Domain 1: Substance | Metric 1: Representativeness | High | Data are measured or estimated for the subject chemical substance. Measured data are consistent with the subject chemical substance's other physical/chemical properties. |
| | Metric 2: Appropriateness | High | |
| 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. The analytical method is non-standard but is expected to be appropriate. |
| | Metric 4: Reliability/Analytical Method | Medium | |
| Domain 3: Other | Metric 5: Databases | High | Data are from a primary peer-reviewed source. Rating of this factor is not applicable to this kind of information. |
| | Metric 6: Models | N/A | |

Overall Quality Determination

High

| | | | | |
|---|--|---|----------|---|
| Study Citation: | 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 Template: | Density | | | |
| HERO ID: | 1322045 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Density | 1.039 g/mL | | | |
| CASRN and Test Material | 84-69-5; di-iso-butyl 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 | | | |
| 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 | Metric 1: | Representativeness | High | Data are measured for the subject chemical substance. |
| | Metric 2: | Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased 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 | The metric is not applicable to the study type. |
| Overall Quality Determination | | Medium | | |

| | |
|----------------------------------|---|
| 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 Template: | Density |
| HERO ID: | 3688160 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| Density | 1049 kg/m3 |
| CASRN and Test Material | 84-69-5; diisobutyl 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 |
| 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 | 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: Haynes WM, Lide DR. 2010. CRC Handbook of Chemistry and Physics. 91st edition. 2010-2011. Boca Raton (FL): CRC Press, Taylor & Francis Group.

| | |
|----------------------------------|---|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). |
| OECD Harmonized Template: | Density |
| HERO ID: | 5155528 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Density | 1.038 - g/cm3 |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate |
| Confidentiality, Type, and Guideline | None; not specified; NR |
| Solvent, Reactivity, Storage, and Stability | NR; Not Reported; Not Reported; Not Reported |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported |
| Density Type | density |
| System | NR |
| Temperature | NR |
| Standard Deviation Results | Not Reported |
| Results Details | Reported as 1038 kg/m^3 |

| EVALUATION | | | |
|----------------------------|---|--------|--|
| 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 secondary sources: NICNAS (National Industrial Chemicals Notification and Assessment Scheme). (2008) Diisobutyl phthalate. Existing chemical hazard assessment report. Australian Government. Available online at <http://www.nicnas.gov.au/Publications/CAR/Other/DiBPP%20hazard%20assessment.pdf> (accessed October 13, 2010). HERO ID 2316625 Not previously extracted, not in distiller.

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|---|---|---|----------|--|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | | | |
| OECD Harmonized Template: | Density | | | |
| HERO ID: | 5155528 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Density | 1.037 - 1.049 g/cm3 | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | None; not specified; NR | | | |
| Solvent, Reactivity, Storage, and Stability | NR; Not Reported; Not Reported; Not Reported | | | |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Density Type | density | | | |
| System | NR | | | |
| Temperature | 20 deg C | | | |
| Standard Deviation Results | Not Reported | | | |
| Results Details | Not Reported | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | 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 secondary sources:European Commission. (2000) Substance ID: 84-69-5. Diisobutyl phthalate. IUCLID Dataset.European Commission. European Chemicals Bureau. Available online at <http://ecb.jrc.ec.europa.eu/iuclid-datasheet/84695.pdf> (accessed April 13, 2011).HEROID 680279Not previously extracted, not in distiller.

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Density |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|---|
| Density | 1.036 - 1.0412 g/cm3 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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; 3 values were reported in Reaxys; 2 values were reported in the range of 1.036 to 1.0412 at 20°C; 1 value (1.049) was reported at a non-standard temperature. |

EVALUATION

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

Overall Quality Determination**High**

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

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|---|--|---|----------|---|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Density | | | |
| HERO ID: | 5926262 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Density | 1.039 g/cm3 | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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

| | |
|----------------------------------|--|
| Study Citation: | Rumble, J. R. (2018). Diisobutyl phthalate. :3-20. |
| OECD Harmonized Template: | Density |
| HERO ID: | 5926366 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Density | 1.0490 g/cm3 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | 15°C |
| Standard Deviation Results | Not Reported |
| Results Details | 15°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**

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|----------------------------------|---|
| Study Citation: | NCBI, (2020). PubChem Compound Summary for CID 6782 Diisobutyl phthalate. |
| OECD Harmonized Template: | Density |
| HERO ID: | 6629592 |

EXTRACTION

| Parameter | Data |
|---|------------------------------------|
| Density | 9.59 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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; NR; NR; NR |
| System | Not reported |
| Temperature | Not Reported |
| Standard Deviation Results | Not reported |
| Results Details | Relative to air |

EVALUATION

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

Overall Quality Determination

High

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

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|----------------------------------|---|
| Study Citation: | NCBI, (2020). PubChem Compound Summary for CID 6782 Diisobutyl phthalate. |
| OECD Harmonized Template: | Density |
| HERO ID: | 6629592 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| Density | 9.6 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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; NR; NR; NR |
| System | Not reported |
| Temperature | Not Reported |
| Standard Deviation Results | Not reported |
| Results Details | Air = 1 |

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

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| Overall Quality Determination | High |
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* Related References: ILO International Chemical Safety Cards (ICSC)

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|---|--|---|----------|---|
| Study Citation: | 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 Template: | Vapor Pressure | | | |
| HERO ID: | 1322045 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Vapor Pressure | 4.73x10-3 Pa | | | |
| CASRN and Test Material | 84-69-5; di-iso-butyl 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 | | | |
| 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 | | |

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|---|--|---|----------|--|
| 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 Template: | Vapor Pressure | | | |
| HERO ID: | 3688160 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Vapor Pressure | 6.3×10-3 Pa | | | |
| CASRN and Test Material | 84-69-5; diisobutyl 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 (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | Medium | The analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source. |
| Domain 3: Other | Metric 5: | Databases | Medium | The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |
| Overall Quality Determination | | Medium | | |

* Related References: cites: Daubert TE, Danner RP. 1989. Physical and thermodynamic properties of purechemicals data compilation. Washington (DC): Taylor and Francis [cited in HSDB 2010].

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| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | Vapor Pressure |
| HERO ID: | 7325405 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| Vapor Pressure | 0.01 Pa |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; NR; liquid; NR |
| Temperature | 20°C |
| System | not specified |
| Standard Deviation Results | not specified |
| Results Details | not specified |

| EVALUATION | | | |
|----------------------------|---|--------|--|
| Domain | Metric | Rating | Comments |
| Domain 1: Substance | Metric 1: Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: Appropriateness | High | Measured data are consistent with the subject chemical substance structural features. |
| Domain 2: Test Reliability | Metric 3: Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: Reliability/Analytical Method | 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: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Vapor Pressure |
| HERO ID: | 5926421 |

EXTRACTION

| Parameter | Data |
|---|---|
| Vapor Pressure | 2E-6 - 5.8E-4 mm Hg |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | 2 data points were reported in Reaxys; 2 values were reported at 2E-6 to 5.8E-4 torr at 25°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: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb. 4; (1997); p. 667 - 749

| | | | | |
|---|--|---|----------|--|
| Study Citation: | Haz-Map, (2021). Hazardous agents: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Vapor Pressure | | | |
| HERO ID: | 8486308 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Vapor Pressure | = 0.00665 mm Hg | | | |
| CASRN and Test Material | 84-69-5; Di-isobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | none; not specified; Not Reported | | | |
| Solvent, Reactivity, Storage, and Stability | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Radiolabel, Source, State, and Purity | Not Reported; Not Reported; Not Reported; Not Reported | | | |
| Temperature | not specified | | | |
| System | not specified | | | |
| 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 | 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: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Vapor Pressure |
| HERO ID: | 3475635 |

EXTRACTION

| Parameter | Data |
|---|--|
| Vapor Pressure | 0.010 Pa |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 298.15 K |
| System | System uses dynamic gas saturation method between 313.15 and 423.15K, using the Clausius-Clapeyron equation to fit to standard temperature (298.15 K). |
| Standard Deviation Results | NA |
| Results Details | Value is extrapolated from vapor pressures measured between 313.15 K and 423.15 K. |

EVALUATION

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

Overall Quality Determination**High**

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|----------------------------------|---|
| 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: | Vapor Pressure |
| HERO ID: | 807140 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Vapor Pressure | 6.20X10 ⁻³ Pa |
| CASRN and Test Material | 84-74-2; diisobutyl 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: DIBP |
| 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 ³ mol ⁻¹ K ⁻¹) 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 ² > 0.7, q ² > 0.5, and SE < 0.3 (ECHA, 2016). |

Overall Quality Determination**High**

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Vapor Pressure |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|--|
| Vapor Pressure | 4.76E-5 mm Hg |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | from experimentally derived coefficients |

EVALUATION

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

Overall Quality Determination**High**

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

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|---|--|---|----------|---|
| Study Citation: | 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 Template: | logKow | | | |
| HERO ID: | 1322045 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| log k _{ow} | 4.27 | | | |
| CASRN and Test Material | 84-69-5; di-iso-butyl 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 | | |

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| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | logKow |
| HERO ID: | 7325405 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| log k_{ow} | 4.11 |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; NR; liquid; 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: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | logKow |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| log k_{ow} | 4.31 - 4.86 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | @ 25 C; 5 values were reported in Reaxys; 3 values were reported at 4.31 to 4.86 at 25 C; 2 values were reported at unreported temperatures. |

| 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 | Medium |
| Domain 3: Other | Metric 5: | Databases | High |
| | Metric 6: | Models | N/A |

Overall Quality Determination **High**

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

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|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | logKow |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| log k_{ow} | 4.34 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not Reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 298.15 K |
| System | Shake-flask method with n-octanol and purified water, quantified by HPLC-UV. |
| pH | Not reported |
| Results Details Method | n-Octanol pre-saturated water with the test substance is poured into a test vessel and stirred with a magnetic stirring bar. 100 g of the aqueous phase is analyzed through C-18 cartridges and eluted with methanol. The concentration of the solute is then quantified by HPLC-UV. |
| Standard Deviation Results | 0.082 |
| Results Details | Value the average of 3 replicates at atmospheric pressure. |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|---|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | High | The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear. Methodology reported in J. Saab, G. Basil, R. About Niccol, J. Stephan, I. Mokbel, J. Jose, Chemosphere 82 (2011) 929-934. |
| | 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

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|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | logKow |
| HERO ID: | 3475635 |

| EVALUATION | | | |
|------------|--------|--------|----------|
| Domain | Metric | Rating | Comments |

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|----------------------------------|---|
| 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: | logKow |
| HERO ID: | 807140 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| log k_{ow} | 4.08 |
| CASRN and Test Material | 84-69-5; diisobutyl 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: DIBP |
| 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 |

| EVALUATION | | | | |
|----------------------------|-----------|---|---------------|---|
| 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. |

Overall Quality Determination

Medium

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|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | logKow |
| HERO ID: | 5926117 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| log k_{ow} | 4.11 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 a peer-reviewed source. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination

High

* Related References: Hansch, C., Leo, A., D. Hoekman. Exploring QSAR - Hydrophobic, Electronic, and Steric Constants. Washington, DC: American Chemical Society, 1995, p. 144

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|---|---|---|----------|--|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. | | | |
| OECD Harmonized Template: | logKow | | | |
| HERO ID: | 5926150 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| log <i>k_{ow}</i> | 4.11 | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 references peer-reviewed original sources. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |
| Overall Quality Determination | | High | | |

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

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| Study Citation: | Aktiengesellschaft,, BASF (2001). [Redacted] Physico-chemical properties of "Palatinol IC". |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 11182936 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 11.5 - mg/L |
| CASRN and Test Material | Not Reported; diisobutyl phthalate |
| Confidentiality, Type, and Guideline | None; experimental; Ammex Commission Directive 92/69/EEC, A6, flask method |
| Solvent, Reactivity, Storage, and Stability | NR; NR; ambient; NR |
| Radiolabel, Source, State, and Purity | NA; Palatinol IC from Weichmacherfabrik (plasticizer factory), CPW/WA-M800; NR; not known Notes: Batch B4118 Partie:23/01 |
| Temperature | 25°C ±2°C |
| System | Stirred at 30°C for 24, 48 and 72 hours and conditioned at 25°C for >1 day. The water phase was separated and extracted with chloroform 3 times. The chloroform was dried and evaporated. |
| pH | 7 |
| Results Details Method | GC analysis |
| Standard Deviation Results | 0.3 mg/L |
| Results Details | 11.5 mg/L (mean value of 3 samples 11.6, 11.2 and 11.7 mg/L at pH 6.8, 6.7 and 7.0) |

| EVALUATION | | | | |
|----------------------------|--|---|--------|---|
| Domain | | Metric | Rating | Comments |
| Domain 1: Substance | | Metric 1: Representativeness | High | Data are measured or estimated for the subject chemical substance. Measured data are consistent with the subject chemical substance structural features or other physical/chemical properties or behaviors. |
| | | Metric 2: Appropriateness | High | |
| 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. Data are obtained by accepted standard analytical methods, including, but not limited to OECD guidelines for physical-chemical properties or other developed standard. |
| | | Metric 4: Reliability/Analytical Method | High | |
| 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

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|---|--|---|----------|---|
| Study Citation: | 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 Template: | Water Solubility | | | |
| HERO ID: | 1322045 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Water Solubility | 9.9 mg/L | | | |
| CASRN and Test Material | 84-69-5; di-iso-butyl 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 | | |

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|----------------------------------|--|
| Study Citation: | CPSC, (2015). Exposure assessment: Composition, production, and use of phthalates. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 5155508 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| Water Solubility | 1.1x10 ⁻³ g/L |
| CASRN and Test Material | 84-69-5; di-isobutyl 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 | 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 |
| | 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 | Medium |
| | Metric 6: | Models | N/A |

Overall Quality Determination

Medium

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

| | |
|----------------------------------|--|
| Study Citation: | EC/HC, (2017). Draft screening assessment: Phthalate substance grouping. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 5353181 |

| EXTRACTION | |
|---|--------------------------------|
| Parameter | Data |
| Water Solubility | 20.3 mg/L |
| CASRN and Test Material | 84-69-5; diisobutyl 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 Reported |

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

Overall Quality Determination

High

* Related References: Source cited: Haynes and Lide 2010

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|----------------------------------|---|
| Study Citation: | ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 679967 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Water Solubility | 1E5 ug/L |
| CASRN and Test Material | Not Reported; Diisobutyl 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 |
| 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 | Metric 1: | 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) | Low | The present authors believe that value are wrong in the light of the other figures quoted. |
| | 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

Low

* Related References: Citing Fishbein and Albro (1972), HERO ID 1313257.

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|---|---|---|----------|--|
| Study Citation: | ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment. | | | |
| OECD Harmonized Template: | Water Solubility | | | |
| HERO ID: | 679967 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Water Solubility | 2E4 ug/L | | | |
| CASRN and Test Material | Not Reported; Diisobutyl 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 | | | |
| 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 | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | Low | The analytical method is unknown and there is no indication that a reliable method was used. |
| Domain 3: Other | Metric 5: | Databases | Medium | The data are from a source that is known but is missing elements required for High designation such as peer-review, public availability, or the inclusion of references to original sources. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |
| Overall Quality Determination | | Medium | | |

* Related References: Citing Leyder and Boulanger (1983) HERO ID 679764.

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| Study Citation: | ECETOC, (1985). An assessment of the occurrence and effects of dialkyl ortho-phthalates in the environment. | | | |
| OECD Harmonized Template: | Water Solubility | | | |
| HERO ID: | 679967 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Water Solubility | 6E3 ug/L | | | |
| CASRN and Test Material | Not Reported; Diisobutyl 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 | | | |
| 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 | | Medium | | |

* Related References: Citing Hollifield, H.C. (1974). Rapid nephelometric estimate of water solubility of highly insoluble organic chemicals of environmental interest. Bull. Envir.Contam. Toxicol., 23, 579. no HERO ID.

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| Study Citation: | ECHA, (2012). Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC): Background document to the Opinion on the Annex XV dossier proposing restrictions on four phthalates: Annexes. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 7325405 |

| EXTRACTION | |
|---|------------------------------------|
| Parameter | Data |
| Water Solubility | 20 mg/L |
| CASRN and Test Material | 84-69-5; Di-isobutyl 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; 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 |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | 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: Annex XV dossier (2009) Annex XV dossier (2009). Proposal for Identification of a Substance as SVHC (CMR), Diisobutyl phthalate, Submitted by Germany, August 2009. Available at: http://echa.europa.eu/doc/consultations/svhc/svhc_axvrep_germany_cmr_diisobutylphthalate_20090831.pdf

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| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Water Solubility | 5.1 - 9.6 mg/L |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| pH | Not reported |
| Results Details Method | Reported as 0.0051 to 0.0096 g/L at 25 C |
| Standard Deviation Results | Not Reported |
| Results Details | 2 data points were reported in Reaxys; 2 values were reported as 0.0051 to 0.0096 g/L at standard temperature. |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | 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: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb. 4; (1997); p. 667 - 749

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| Study Citation: | 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. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 7401366 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 6.2 mg/L |
| CASRN and Test Material | Not Reported; diisobutyl 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; NR; NR; Liquid; NR |
| Radiolabel, Source, State, and Purity | 24±2°C |
| Temperature | 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. |
| System | Not reported |
| pH | Study performed at constant slit width, 3,2,2,3,5 slit arrangement. Excitation and emission monochromators set to 600 nm. |
| Results Details Method | Not Reported |
| Standard Deviation Results | 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. |
| Results Details | |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | 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).

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| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 7.080E-7 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 298.15 K |
| System | Water solubility measured using a dynamic saturation apparatus with quantification via HPLC-UV. Methanol was used as the solvent for elution. |
| pH | Not reported |
| Results Details Method | Temperature measurement accuracy was ± 0.02 K. |
| Standard Deviation Results | 2.54E-6 |
| Results Details | Value reported as mole fraction, where mole fraction = n solute / (n water + n solute). The value could not be converted to standard units as the volume of water used was not reported in this paper. Value initially reported as 7.080E7 but based on later references to solubilities of "10 ⁻⁷ ", this is believed to be a typo. Average of three replicates measured at atmospheric pressure. |

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

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|---------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| | | EVALUATION | |
|-------------------------------|--------|------------|----------|
| Domain | Metric | Rating | Comments |
| Overall Quality Determination | | Medium | |

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|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 7.051E-7 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 303.15 K |
| System | Water solubility measured using a dynamic saturation apparatus with quantification via HPLC-UV. Methanol was used as the solvent for elution. |
| pH | Not reported |
| Results Details Method | Temperature measurement accuracy was ± 0.02 K. |
| Standard Deviation Results | 1.68E-1 |
| Results Details | Value reported as mole fraction, where mole fraction = n solute / (n water + n solute). The value could not be converted to standard units as the volume of water used was not reported in this paper. Value initially reported as 7.051E7 but based on later references to solubilities of "10 ⁻⁷ ", this is believed to be a typo. Average of three replicates measured at atmospheric pressure. |

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

Overall Quality Determination**Medium**

| | |
|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 8.072E-7 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 308.15 K |
| System | Water solubility measured using a dynamic saturation apparatus with quantification via HPLC-UV. Methanol was used as the solvent for elution. |
| pH | Not reported |
| Results Details Method | Temperature measurement accuracy was ± 0.02 K. |
| Standard Deviation Results | 2.01E-1 |
| Results Details | Value reported as mole fraction, where mole fraction = n solute / (n water + n solute). The value could not be converted to standard units as the volume of water used was not reported in this paper. Value initially reported as 8.072E7 but based on later references to solubilities of "10 ⁻⁷ ", this is believed to be a typo. Average of three replicates measured at atmospheric pressure. |

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

Overall Quality Determination**Medium**

| | |
|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Water Solubility | 8.590E-7 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 313.15 K |
| System | Water solubility measured using a dynamic saturation apparatus with quantification via HPLC-UV. Methanol was used as the solvent for elution. |
| pH | Not reported |
| Results Details Method | Temperature measurement accuracy was ± 0.02 K. |
| Standard Deviation Results | 4.20E-5 |
| Results Details | Value reported as mole fraction, where mole fraction = n solute / (n water + n solute). The value could not be converted to standard units as the volume of water used was not reported in this paper. Value initially reported as 8.590E7 but based on later references to solubilities of "10 ⁻⁷ ", this is believed to be a typo. Average of three replicates measured at atmospheric pressure. |

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

Overall Quality Determination**Medium**

| | |
|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Water Solubility | 11.254E-7 |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Experimental; Not reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 323.15 K |
| System | Water solubility measured using a dynamic saturation apparatus with quantification via HPLC-UV. Methanol was used as the solvent for elution. |
| pH | Not reported |
| Results Details Method | Temperature measurement accuracy was ± 0.02 K. |
| Standard Deviation Results | 1.57E-6 |
| Results Details | Value reported as mole fraction, where mole fraction = n solute / (n water + n solute). The value could not be converted to standard units as the volume of water used was not reported in this paper. Value initially reported as 11.254E7 but based on later references to solubilities of "10 ⁻⁷ ", this is believed to be a typo. Average of three replicates measured at atmospheric pressure. |

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

Overall Quality Determination**Medium**

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|----------------------------------|---|
| 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: | Water Solubility |
| HERO ID: | 807140 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Water Solubility | 13.8 mg/L |
| CASRN and Test Material | 84-69-5; diisobutyl 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: DIBP |
| 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: $\text{Log Sw} = 8.2431 - 0.5718 (\text{Lu})$ |
| 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 |

| EVALUATION | | | | |
|----------------------------|-----------|---|---------------|---|
| 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. |

Overall Quality Determination

Medium

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|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 5926117 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Water Solubility | 6.2 mg/L |
| CASRN and Test Material | 84-69-5; Diisobutyl 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. 1111

| | |
|----------------------------------|---|
| Study Citation: | U.S. EPA, (2019). Chemistry Dashboard Information for Diisobutyl phthalate. 84-69-5.. |
| OECD Harmonized Template: | Water Solubility |
| HERO ID: | 5926150 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Water Solubility | 6.2 mg/L |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | Unit conversion conducted to obtain 6.2 mg/L. Reported as 2.23e-5 mol/L. |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | 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)

| | |
|----------------------------------|--|
| Study Citation: | CPSC, (2015). Exposure assessment: Composition, production, and use of phthalates. |
| OECD Harmonized Template: | Flash Point |
| HERO ID: | 5155508 |

| EXTRACTION | |
|---|---------------------------------|
| Parameter | Data |
| Flash Point | 161 - 185 C |
| CASRN and Test Material | 84-69-5; di-isobutyl 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 |
| System | Not Reported |
| Standard Deviation Results | 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 Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | 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 peer-review. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination

Medium

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

| | |
|----------------------------------|---|
| Study Citation: | NCBI, (2020). PubChem Compound Summary for CID 6782 Diisobutyl phthalate. |
| OECD Harmonized Template: | Flash Point |
| HERO ID: | 6629592 |

| EXTRACTION | |
|---|-----------------------------------|
| Parameter | Data |
| Flash Point | 385 F |
| CASRN and Test Material | 84-69-5; Diisobutyl 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; 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 secondary database with a reference to the original source. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination

Medium

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

| | | | | |
|---|---|---|--------|---|
| Study Citation: | NCBI, (2020). PubChem Compound Summary for CID 6782 Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Flash Point | | | |
| HERO ID: | 6629592 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Flash Point | 365 F | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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; NR | | | |
| System | Open cup | | | |
| Standard Deviation Results | Not reported | | | |
| Results Details | 185°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 | 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 secondary database with a reference to the original source. |
| | Metric 6: | Models | N/A | Rating of this factor is not applicable to this kind of information. |
| Overall Quality Determination | | Medium | | |

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

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Flash Point |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Flash Point | 365 F |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| System | Open cup |
| Standard Deviation Results | Not reported |
| Results Details | 185°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 | 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: National Fire Protection Association; Fire Protection Guide to Hazardous Materials. 14TH Edition, Quincy, MA 2010, p. 325-47

| | |
|----------------------------------|--|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. |
| OECD Harmonized Template: | Flash Point |
| HERO ID: | 5926262 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Flash Point | 169 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| | Metric 2: | Appropriateness | N/A |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium |
| | Metric 4: | Reliability/Analytical Method | Low |
| Domain 3: Other | Metric 5: | Databases | Medium |
| | Metric 6: | Models | N/A |

Overall Quality Determination

Medium

* Related References: Alfa Aesar

| | | | | |
|---|--|---|----------|---|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Flash Point | | | |
| HERO ID: | 5926262 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Flash Point | 336.2 F | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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: Alfa Aesar

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|---|--|---|----------|---|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Flash Point | | | |
| HERO ID: | 5926262 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Flash Point | 180 C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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

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

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Flash Point | 185 C |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | Medium | Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source. |
| Domain 3: Other | Metric 5: Databases | High | Data is from a known data-collection, prepared by experts in the field. |
| | Metric 6: Models | N/A | Rating of this factor is not applicable to this kind of information. |

Overall Quality Determination**High**

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Autoflammability |
| HERO ID: | 5926117 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Auto-flammability | 810 F |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| System | Not reported |
| Standard Deviation Results | Not reported |
| Results Details | 432°C |
| Results Value | Not Reported |

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

Overall Quality Determination **High**

* Related References: National Fire Protection Association; Fire Protection Guide to Hazardous Materials. 14TH Edition, Quincy, MA 2010, p. 325-47

| | | | | |
|---|--|---|--------|--|
| Study Citation: | Sigma-Aldrich, (2020). Diisobutyl phthalate safety data sheet. | | | |
| OECD Harmonized Template: | Autoflammability | | | |
| HERO ID: | 6302634 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Auto-flammability | 423 C | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | None; not specified; not specified | | | |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR | | | |
| Radiolabel, Source, State, and Purity | No; Sigma-Aldrich; Liquid; ≤100% | | | |
| System | Not reported | | | |
| Standard Deviation Results | Not reported | | | |
| Results Details | Auto-ignition temperature = 423°C (793°F) at 1013 hPA | | | |
| Results Value | 423°C | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data is reported for the target 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 | Analytical method is unknown but is likely to be appropriate based on the data’s inclusion in a peer-reviewed/recognized database or other secondary source. |
| Domain 3: Other | Metric 5: | Databases | Low | Data is from a known chemical supplier. 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 | | Low | | |

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Viscosity |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Viscosity | 41 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| Test Conditions | Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | 41 mPa.S |

EVALUATION

| Domain | Metric | Rating | Comments |
|----------------------------|---|--------|--|
| Domain 1: Substance | Metric 1: Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: Reliability/Analytical Method | Medium | 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: Gerhartz, W. (exec Ed.) Ullmann's Encyclopedia of Industrial Chemistry. 5th Ed. Vol A1: Deerfield Beach, FL: VCH Publishers. p. VA20 193.

| | |
|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Refractive Index |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Refractive Index | 1.491 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | Wavelength: 589 nm |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| 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. |

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| Overall Quality Determination | High |
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* Related References: Fischer et al.; Pharmazeutische Zentralhalle; vol. 105; (1966); p. 73,74,

| | |
|----------------------------------|---|
| Study Citation: | NLM, (2013). PubChem: Hazardous Substance Data Bank: Diisobutyl phthalate, 84-69-5. |
| OECD Harmonized Template: | Refractive Index |
| HERO ID: | 5926117 |

EXTRACTION

| Parameter | Data |
|---|----------------------------------|
| Refractive Index | 1.4900 |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| Results Details Methods | Not Reported |
| Parameter | Not Reported |

EVALUATION

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

Overall Quality Determination

High

* Related References: Lewis, R.J. Sr. 2007. Hawley's Condensed Chemical Dictionary 15th Edition. John Wiley & Sons, Inc. New York, NY.

| | | | | |
|---|--|---|----------|---|
| Study Citation: | RSC, (2019). ChemSpider: Diisobutyl phthalate. | | | |
| OECD Harmonized Template: | Refractive Index | | | |
| HERO ID: | 5926262 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Refractive Index | 1.49 | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | | | |
| 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 | 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

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| 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. |
| OECD Harmonized Template: | Henry's Law |
| HERO ID: | 4159647 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Henry's Law | 0.133 Pa m ³ /mol |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate |
| Confidentiality, Type, and Guideline | None; QSAR; Not Reported |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; NR; NR; NR Notes: DIBP |
| 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 | log Kaw = -4.27 |
| 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 Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | High | The methodology for producing the information is designed to answer a specific question, and the methodology's objective is clear. |
| | Metric 4: | Reliability/Analytical Method | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 3: Other | Metric 5: | Databases | 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 ² > 0.7, q ² > 0.5, and SE < 0.3. |

Overall Quality Determination

High

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| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Henry's Law |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| Henry's Law | 1.83E-7 atm-m3/mol |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 |
| pH | Not Reported |
| System | Not Reported |
| Standard Deviation Results | Not Reported |
| Results Details | Not Reported |
| Results Details Methods | Not Reported |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical's physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | Medium | Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source. |
| Domain 3: Other | Metric 5: | Databases | High | Data is from a 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. |

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| Overall Quality Determination | High |
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* Related References: Staples, Charles A.; Peterson, Dennis R.; Parkerton, Thomas F.; Adams, William J.; Chemosphere; vol. 35; nb.4; (1997); p. 667 - 749

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|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Henry's Law |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Henry's Law | 14.78 kPa |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Calculation; Non-guideline |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 298.15 K |
| pH | Not reported |
| System | Not reported |
| Standard Deviation Results | Not reported |
| Results Details | Reported as 14.78 kPa |
| Results Details Methods | Calculated based on experimental vapor pressure (0.0105 Pa) and mole fraction of water solubility (7.080×10^{-7}). |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|---|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | 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/or] other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | Medium | The analytical method is non-standard but is expected to be appropriate, based on methods used to derive calculation inputs. |
| 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

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|----------------------------------|---|
| Study Citation: | Ishak, H., Stephan, J., Karam, R., Goutaudier, C., Mokbel, I., Saliba, C., Saab, J. (2016). Aqueous solubility, vapor pressure and octanol-water partition coefficient of two phthalate isomers dibutyl phthalate and di-isobutyl phthalate contaminants of recycled food packages. Fluid Phase Equilibria 427:362-370. |
| OECD Harmonized Template: | Henry's Law |
| HERO ID: | 3475635 |

| EXTRACTION | |
|---|---|
| Parameter | Data |
| Henry's Law | 10.77 Pa·m ³ /J |
| CASRN and Test Material | 84-69-5; Di-iso-butyl phthalate |
| Confidentiality, Type, and Guideline | None; Calculation; Non-guideline |
| Solvent, Reactivity, Storage, and Stability | NR; NR; NR; NR |
| Radiolabel, Source, State, and Purity | NR; Sigma-Aldrich; NR; 99% Notes: Used without further purification. |
| Temperature | 298.15 K |
| pH | Not reported |
| System | Air-water partition coefficient Kaw; calculated using Henry's law constant based on experimental vapor pressure (0.0105 Pa) and mole fraction of water solubility (7.080 x 10 ⁻⁷); WS: dynamic saturation method; VP: dynamic gas saturation method |
| Standard Deviation Results | Not reported |
| Results Details | Reported as 10.77 Pa·m ³ /J; Kaw = KhMw/RTρ _w (Kh: Henry's law constant; Mw: molar mass, R: gas constant, ρ _w : density of water) |
| Results Details Methods | experimental vapor pressure: HPLC-UV and water solubility: HPLC-UV (using an internal calibration method with BBP) |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | 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/or] other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | High | The analytical methods are 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

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|----------------------------------|---|
| 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: | Henry's Law |
| HERO ID: | 807140 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| Henry's Law | Not Reported |
| CASRN and Test Material | 84-69-5; diisobutyl 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: DIBP |
| 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= -4.30 |
| 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 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. |

Overall Quality Determination**Medium**

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|---|---|---|----------|--|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | | | |
| OECD Harmonized Template: | Henry’s Law | | | |
| HERO ID: | 5155528 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Henry’s Law | 6.43E-7 - atm-m^3/mole | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | No; not specified; NR | | | |
| 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 | NR | | | |
| pH | NR | | | |
| System | Not Reported | | | |
| Standard Deviation Results | NR | | | |
| Results Details | NR | | | |
| Results Details Methods | NR | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | 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 secondary source: NICNAS (National Industrial Chemicals Notification and Assessment Scheme). (2008) Diisobutyl phthalate. Existing chemical hazard assessment report. Australian Government. Available online at <http://www.nicnas.gov.au/Publications/CAR/Other/DiBPP%20hazard%20assessment.pdf> (accessed October 13, 2010). HERO ID 2316625

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|---|---|---|----------|--|
| Study Citation: | U.S. Consumer Product Safety Commission (CPSC) (2011). Toxicity review of diisobutyl phthalate (DiBP, CASRN 84-69-5). | | | |
| OECD Harmonized Template: | Henry’s Law | | | |
| HERO ID: | 5155528 | | | |
| EXTRACTION | | | | |
| Parameter | Data | | | |
| Henry’s Law | 1.22E-06 - atm-m^3/mole | | | |
| CASRN and Test Material | 84-69-5; Diisobutyl phthalate | | | |
| Confidentiality, Type, and Guideline | No; not specified; NR | | | |
| 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 | 25 deg C | | | |
| pH | NR | | | |
| System | Not Reported | | | |
| Standard Deviation Results | NR | | | |
| Results Details | NR | | | |
| Results Details Methods | NR | | | |
| EVALUATION | | | | |
| Domain | Metric | Rating | Comments | |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | High | Measured data are consistent with the subject chemical substance structural features (e.g., presence of certain functional groups) or other physical/chemical properties. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | 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 secondary source:HSDB (Hazardous Substance Data Bank). (2009) Diisobutyl phthalate. National Library of Medicine HSDB Database. (Last Revision, 01/05/2009).Same source but previous version of HEROID 5926117.Not previously extracted, HEROID in distiller.

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|----------------------------------|--|
| Study Citation: | Elsevier, (2019). Reaxys: physical-chemical property data for diisobutyl phthalate. CAS Registry Number: 84-69-5.. |
| OECD Harmonized Template: | Dielectric Constant |
| HERO ID: | 5926421 |

| EXTRACTION | |
|---|----------------------------------|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; Diisobutyl 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 | 6.56 |
| Temperature | 25°C |
| System | Not Reported |
| Results Value | Not Reported |
| Results Details | Not Reported |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured for the subject chemical substance. |
| | Metric 2: | Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | Medium | There is no indication that the methodology for producing the information was biased towards a particular product or outcome. |
| | Metric 4: | Reliability/Analytical Method | Medium | Analytical method is unknown but is likely to be appropriate based on the data's inclusion in a peer-reviewed/recognized database or other secondary source. |
| Domain 3: Other | Metric 5: | Databases | High | Data is from a 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: Buchner; Barthel; Berichte der Bunsengesellschaft/Physical Chemistry Chemical Physics;vol. 101; nb. 10; (1997); p. 1509 - 1516

| | |
|----------------------------------|---|
| 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: | Other Properties |
| HERO ID: | 807140 |

| EXTRACTION | |
|---|--|
| Parameter | Data |
| CASRN and Test Material | 84-69-5; diisobutyl 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: DIBP |
| Results Value | Log Koa = 8.38 |
| Results Details | Koa = So/S(A) where So is solubility in octanol and S(A) is the solubility in air |
| Results Remarks | Not Reported |

| EVALUATION | | | | |
|----------------------------|-----------|---|--------|--|
| Domain | Metric | | Rating | Comments |
| Domain 1: Substance | Metric 1: | Representativeness | High | Data are measured or estimated for the subject chemical substance. |
| | Metric 2: | Appropriateness | N/A | Rating of this factor is not applicable to this kind of information. |
| Domain 2: Test Reliability | Metric 3: | Reliability/Unbiased (Method Objectivity) | 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

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 ³ /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 ³ | 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 _{oa} | Octanol-Air partition coefficient |
| K _{ow} | 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 ⁺) Concentration in Aqueous Solution |
| pK _a | Negative base 10 Log of Acid Dissociation Constant (K _a) |
| 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 |