

### SAFETY DATA SHEET

Preparation Date: 3/23/2023

Revision Date: 3/23/2023

Revision Number: GHS1

#### 1. IDENTIFICATION

##### Product identifier

**Product code:** DBP1  
**Product Name:** DIBUTYL PHTHALATE

##### Other means of identification

**Synonyms:** Dibutyl 1,2-benzenedicarboxylate  
Di-n-butyl phthalate  
o-Benzenedicarboxylic acid, dibutyl ester  
Benzene-o-dicarboxylic acid di-n-butyl ester  
n-Butylphthalate  
DBP (ester)  
Dibutyl o-phthalate

**CAS #:** 84-74-2  
**RTECS #** TI0875000

##### Recommended use of the chemical and restrictions on use

**Recommended use:** Solvent. Plasticizer.  
**Uses advised against** No information available

**Supplier:** Chemical Store Inc.  
1059 Main Ave.  
Clifton, NJ 07011  
(973) 405-6248

**Order Online At:** [www.ChemicalStore.com](http://www.ChemicalStore.com)  
**Emergency telephone number** 1-973-420-4972  
**Region:** USA  
**Language:** English

#### 2. HAZARDS IDENTIFICATION

##### Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Reproductive toxicity	Category 1B
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##### Label elements

###### **Danger**

###### **Hazard statements**

May damage fertility or the unborn child



**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

*IF exposed or concerned: Get medical advice/attention*

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No.	Weight %
Dibutyl Phthalate	84-74-2	100

**4. FIRST AID MEASURES**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention.
<b>Most important symptoms and effects</b>	No information available.
<b>Notes to Physician</b>	Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media:

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray mist or foam.

#### Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

### Specific hazards arising from the chemical

#### Hazardous Combustion Products:

Carbon Monoxide, Carbon Dioxide.

#### Specific hazards:

May be combustible at high temperatures. May be ignited by heat, sparks or flames.

### Special Protective Actions for Firefighters

#### Specific Methods:

For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

#### Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

#### Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth).

#### Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors or spray mist. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

#### **Incompatible Materials:**

Strong oxidizing agents  
Chlorine  
Nitrates  
Bases

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Dibutyl Phthalate	84-74-2	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	None

### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### **Personal Protective Equipment**

**Eye protection:** Goggles

**Skin and body protection:** Long sleeved clothing  
Chemical resistant apron  
Gloves

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands and face before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<p><b>Physical state:</b> Liquid</p> <p><b>Odor:</b> Slight. Aromatic. Ester-like.</p> <p><b>Molecular/Formula weight:</b> 278.35</p> <p><b>Flash Point Tested according to:</b> Closed cup</p> <p><b>Upper Explosion Limit (%):</b> No information available</p> <p><b>Boiling point/range(°C/°F):</b> 340 °C/644 °F</p> <p><b>Specific gravity:</b> 1.0459-1.0465</p> <p><b>Evaporation rate:</b> No information available</p> <p><b>Odor threshold (ppm):</b> No information available</p> <p><b>Miscibility:</b> Miscible with Ether Miscible with Ethanol</p>	<p><b>Appearance:</b> Viscous. Oily.</p> <p><b>Taste</b> Strong. Bitter.</p> <p><b>Flammability:</b> No information available</p> <p><b>Autoignition Temperature (°C/°F):</b> 402 °C/757 °F</p> <p><b>Melting point/range(°C/°F):</b> -35 °C/-31 °F</p> <p><b>Bulk density:</b> No information available</p> <p><b>pH:</b> No information available</p> <p><b>Vapor density:</b> 9.58</p> <p><b>Partition coefficient (n-octanol/water):</b> log Kow = 4.50</p> <p><b>Solubility:</b> Practically insoluble in water Very soluble in Acetone Very soluble in Benzene Soluble in Carbon tetrachloride</p>	<p><b>Color:</b> Colorless. Light yellow.</p> <p><b>Formula:</b> C16H22O4</p> <p><b>Flashpoint (°C/°F):</b> 157 °C/315 °F</p> <p><b>Lower Explosion Limit (%):</b> 0.5%</p> <p><b>Decomposition temperature(°C/°F):</b> No information available</p> <p><b>Density (g/cm3):</b> No information available</p> <p><b>Vapor pressure @ 20°C (kPa):</b> No information available</p> <p><b>VOC content (g/L):</b> No information available</p> <p><b>Viscosity:</b> No information available</p>
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## 10. STABILITY AND REACTIVITY

### Reactivity

Liquid chlorine reacts explosively with Dibutyl Phthalate

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Strong oxidizing agents  
Chlorine  
Nitrates  
Bases

**Hazardous decomposition products:** No information available

**Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Principal Routes of Exposure:

Ingestion. Inhalation. Skin.

### Acute Toxicity

#### Component Information

Dibutyl Phthalate	
CAS-No.	84-74-2

**LD50/oral/rat** = 7499 mg/kg Oral LD50 Rat

**LD50/oral/mouse** = 3474 mg/kg

**LD50/dermal/rabbit** = >20 mL/kg Dermal LD50 Rabbit; > 20000 mg/kg Dermal LD 50 Rabbit

**LD50/dermal/rat** = No information available

**LC50/inhalation/rat** = >15.68 mg/L Inhalation LC50 Rat 4 h

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

#### Product Information

**LD50/oral/rat** =

**VALUE- Acute Tox Oral** = 7499 mg/kg

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = 3474 mg/kg

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = > 20000 mg/kg

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor** = No information available

**VALUE - Gas** = No information available

**VALUE - Dust/Mist** = No information available

### Symptoms

#### **Skin Contact:**

Substance may cause slight skin irritation. May cause stinging and burning sensation. It may be absorbed through the skin.

#### **Eye Contact:**

May cause slight or mild eye irritation. Symptoms may include stinging, tearing, redness.

#### **Inhalation**

May cause irritation of respiratory tract. It may affect behavior/central nervous system (ataxia). It may affect behavior/central nervous system (convulsions/seizures). May cause dizziness and headache. May cause nausea.

#### **Ingestion**

May cause gastrointestinal (digestive) tract irritation with nausea, vomiting. May

affect behavior (hallucinations). May affect behavior/central nervous system (dizziness, headache). May affect urinary system (kidneys). May affect behavior/central nervous system (somnolence). May affect respiration (dyspnea, respiratory depression).

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Chronic exposure may affect the liver and kidneys. Prolonged or repeated inhalation may affect the brain. Prolonged or repeated inhalation may affect the blood (normocytic anemia). Prolonged or repeated ingestion may affect the thyroid (thyroid hypofunction). Prolonged or repeated ingestion may cause weight loss.

**Sensitization:** No information available.

**Mutagenic Effects:** Mutations in microorganisms  
Experiments with bacteria and/or yeast have shown mutagenic effects

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Dibutyl Phthalate	84-74-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** May damage fertility or the unborn child

**Reproductive Effects:** Possible risk of impaired fertility  
**Developmental Effects:** May cause adverse developmental effects  
 May cause harm to the unborn child  
**Teratogenic Effects:** May cause birth defects (teratogenic effects)  
 May cause harm to the unborn child

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** Kidneys. Nervous system.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

Toxicity to fish	static test LC50 - Lepomis macrochirus (Bluegill sunfish) - ca. 0.48 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - ca. 2.99 mg/l - 48 h (US-EPA)

Toxicity to algae	static test EC50 - Pseudokirchneriella subcapitata (green algae) - 0.75 mg/l - 10 d (US-EPA) static test NOEC - Pseudokirchneriella subcapitata (green algae) - 0.39 mg/l - 10 d (US-EPA)
Toxicity to bacteria	EC50 - Tetrahymena pyriformis - 2.2 mg/l - 24 h Remarks: (ECHA)
Toxicity to fish(Chronic toxicity)	flow-through test NOEC - Oncorhynchus mykiss (rainbow trout) - 0.1 mg/l - 99 d (US-EPA)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	flow-through test NOEC - Daphnia magna (Water flea) - 0.158 mg/l - 21 d (OECD Test Guideline 211) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Bis(2- ethylhexyl) phthalate

**Freshwater Fish Species Data:** 0.71 - 1.2 mg/L LC50 Pimephales promelas 96 h flow-through 1 0.31 - 5.45 mg/L LC50 Pimephales promelas 96 h static 1 1.24 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1 1.24 - 5.3 mg/L LC50 Oncorhynchus mykiss 96 h static 1 1.38 - 1.74 mg/L LC50 Lepomis macrochirus 96 h flow-through 1 0.42 - 1.28 mg/L LC50 Lepomis macrochirus 96 h static 1

**Water Flea Data:** 2.99 mg/L EC50 Daphnia magna 48 h 3.4 mg/L EC50 Daphnia magna 48 h

**Persistence and degradability:** Result: 81 % - Readily biodegradable. (Regulation (EC) No. 440/2008, Annex, C.4-C)

**Bioaccumulative potential:** Pimephales promelas (fathead minnow) - 11 d - 0.0348 mg/l (dibutyl phthalate)

Bioconcentration factor (BCF): 2,165 Remarks: Does not bioaccumulate..

**Mobility:** It is expected to have low mobility based upon estimated Koc (Soil Adsorption Coefficient).

### 13. DISPOSAL CONSIDERATIONS

**Disposal instructions:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Contaminated packaging:** Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Dibutyl Phthalate	84-74-2	None	None	None	U069

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Class:** No information available  
**Packing group:** III  
**Emergency Response Guide Number:** 171  
**Marine Pollutant:** Marine Pollutant  
**DOT RQ (lbs):** No information available  
**Special Provisions:** 8, 146, 173, 335, IB3, T4, TP1, TP29  
**Symbol(s):** [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III, Marine pollutant

### TDG (Canada)

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** Marine Pollutant  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dibutyl Phthalate), 9, III

### ADR

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Special Provisions:** 274, 335, 375, 601  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (DIBUTYL PHTHALATE), 9, III

### IMO / IMDG

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** Marine Pollutant  
**EMS:** F-A  
**Special Provisions:** 274, 335, 969  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (DIBUTYL PHTHALATE), 9, III, Marine pollutant

### RID

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Special Provisions:** 274, 335, 375, 601

**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (DIBUTYL PHTHALATE), 9, III

**ICAO**

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dibutyl Phthalate), 9, III  
**Special Provisions** A97, A158, A197

**IATA**

**UN-No:** UN3082  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (dibutyl phthalate)  
**Hazard Class:** 9  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 9L  
**Special Provisions** No information available  
**Description:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dibutyl Phthalate), 9, III

**15. REGULATORY INFORMATION**

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
dibutyl phthalate	84-74-2	2007-03-01

**SARA 311/312 Hazards**

Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
dibutyl phthalate	84-74-2	2007-03-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
dibutyl phthalate	84-74-2	2007-03-01

**California Prop. 65 Components**

	CAS-No.	Revision Date
, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . dibutyl phthalate	84-74-2	2008-06-17

## 16. OTHER INFORMATION

**Preparation Date:** 3/23/2023  
**Revision Date:** 3/23/2023  
**Prepared by:** Safety and Compliance Department

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Chemical Store Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, ChemicalStore assumes no responsibility for the completeness or accuracy of the information contained herein.