



Section 1. Product and Company Identification

Product Name Dimethyl Phthalate
CAS Number 131-11-3

Parchem - fine & specialty chemicals
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EMERGENCY RESPONSE NUMBER
CHEMTEL
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Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
Not classified as a hazardous substance or mixture

GHS Label Elements
Pictograms: N/A
Signal word: N/A

Hazard and precautionary statements
None

Section 3. Composition / Information on Ingredients

Common Name Dimethyl Phthalate
Synonym(s) 1,2-Benzenedicarboxylic acid, dimethyl ester; DMP; Dimethyl 1,2-benzene dicarboxylate; Dimethyl benzene-o-dicarboxylate; Dimethyl phthalate; Methyl phthalate; Phthalic acid dimethyl ester
Formula $C_{10}H_{10}O_4$
CAS Number 131-11-3

COMPONENT	CAS NUMBER	CONCENTRATION
Dimethyl Phthalate	131-11-3	> 99%

Section 4. First Aid Measures

Description of first-aid measures

Inhalation: If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention immediately.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do, after the first 2 minutes and



continue rinsing. If irritation occurs or persists, seek medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing and continue rinsing for at least 15 minutes. Wash contaminated clothing thoroughly before reuse. Discard contaminated shoes. If irritation occurs or persists, seek medical attention.

Ingestion: Rinse thoroughly mouth with water. Remove dentures, if any. Give 1 - 2 cups of water or milk to drink if victim is conscious, alert and able to swallow. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Obtain medical advice. Lay victim on side with head lower than the waist to prevent aspiration of material during vomiting.

Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: May cause eye irritation. Symptoms may include redness, pain, swelling, irritation, and tearing. Contact with eyes may cause considerable pain, but causes no damage or mild, reversible damage of the corneal epithelium.

Skin: May cause skin irritation. Symptoms may include localized redness and discomfort. Low hazard for normal industrial handling.

Inhalation: Low inhalation hazard unless this material is heated or misted. If heated, inhalation may cause irritation of the upper respiratory tract and mucous membranes. Symptoms may include runny nose, scratchy throat, coughing, chest pain, and shortness of breath. Higher exposures may cause central nervous system effects with dizziness, narcosis, nausea, and headache.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause burning sensation of the mouth, lips, and tongue. Central nervous effects including coma, are possible.

Chronic: Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of this substance. Dimethyl Phthalate has been shown to be a teratogen in laboratory animal testing. It is a possible teratogen in humans, and may reduce fertility in males and females. Refer to Section 11.2.

Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel: Treat symptomatically and supportively.

Section 5. Firefighting Measures

Extinguishable media

Suitable methods of extinction: Use dry chemical, carbon dioxide, alcohol-resistant foam, water spray, or water fog. Water or foam may cause frothing.

Unsuitable methods of extinction: Water jets may spread the fire.

Special hazards arising from the substance or mixture: Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Not considered to be explosion hazard.



Advice for firefighters: Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible auto-ignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer, or drain to prevent environmental contamination.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. Remove all sources of ignition.

Environmental precautions: Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

Methods and materials for containment and cleaning up: Cover drains and contain spill. Cover with a large quantity of inert absorbent. Do not use combustible material such as saw dust. Shovel or sweep up product and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of waste via a licensed waste disposal contractor.

Releases should be reported, if required, to appropriate agencies. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. Section 304). If release occurs in the US and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA).

Reference to other sections: See Section 13 for additional waste treatment information

Section 7. Handling and Storage

Precautions for safe handling: Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing before reuse. Discard contaminated shoes.

Advice on protection against fire and explosion: May be combustible at high temperatures.

Conditions for safe storage, including any incompatibilities: Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Keep container tightly closed. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers of this material may be hazardous when empty since they retain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

Section 8. Exposure Controls / Personal Protection

Control Parameters

Dimethyl Phthalate (131-11-3)

OSHA PEL: 5 mg/m³ TWA

ACGIH TLV: 5 mg/m³ TWA

NIOSH: 5 mg/m³ TWA

Exposure controls

Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with non-perforated side shields and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

Other protective equipment: Protective clothing. Protective boots, if the situation requires.

Respiratory Protection: None required with normal use. Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Clear, colorless oily liquid

Odor: Slight, aromatic

Odor Threshold: No data available

Molecular Weight: 194.184

Chemical Formula: C₁₀H₁₀O₄

pH: No data available

Freezing/Melting Point: 5.5°C (41.9°F)

Initial Boiling Point: 282°C (540°F)

Evaporation Rate: <1 (BuOAc = 1)

Flammability (solid, gas): Not applicable



Flash Point (Closed Cup): 154°C (309.2°F)
Auto-ignition Temperature: 490°C (915°F)
Decomposition Temperature: No data available
Lower Explosive Limit (LEL): 1.2%
Upper Explosive Limit (UEL): 9.5%
Vapor Pressure: 1 mm Hg @ 100°C
Vapor Density: 6.69 (Air = 1)
Specific Gravity: 1.19 @ 20°C
Viscosity (25°C): 17.2 cPs
Solubility in Water: 4 g/1 @ 25°C
Partition Coefficient (n-Octanol/Water): 1.5
Volatiles by Volume (70°F): 100% v/v

Other data: No data available

Section 10. Stability and Reactivity

Reactivity: No special reactivity has been reported.

Chemical stability: This product is stable under recommended storage conditions, handling, and use.

Possibility of hazardous reactions: None known

Hazardous polymerization: Does not occur.

Conditions to avoid: High temperatures. Contact with incompatible materials.

Incompatible materials: Oxidizing agents, acids, bases, nitric acid. May attack some forms of plastics, rubbers and coatings.

Hazardous Decomposition Products: Thermal decomposition products include oxides of carbon.

Section 11. Toxicological Information

Information on toxicological effects

Acute Oral Toxicity: LD50 - rat: 8,200 mg/kg

Acute inhalation toxicity: No data available

Acute dermal toxicity: LD50 - rabbit: >12,000 mg/kg

Skin irritation/corrosion: May cause skin irritation

Eye irritation/corrosion: May cause eye irritation

Sensitization: No data available

Genotoxicity in vitro: No data available

Mutagenicity: No data available

Specific organ toxicity - single exposure: No data available

Specific organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available



Further information

This material is not listed as a carcinogen by IARC, ACGIH, NTP, or OSHA. No data is available regarding the mutagenicity or teratogenicity of this material in humans, nor is there available data that indicates that it causes adverse developmental or fertility effects in humans.

Experimental data using laboratory animals have shown that Dimethyl Phthalate has caused teratogenic effects in laboratory animals. Relevance to humans is unknown.

Handle in accordance with good industrial hygiene and safety practice.

Section 12. Ecological Information

Toxicity: This material may be toxic to aquatic life.

Acute and prolonged toxicity to fish

LC50- Pimephales promelas (Fathead minnow), 96 h: 39 mg/l

LC50- Leuciscus idus (Golden orfe): 100-220 mg/l

LC50 - Lepomis macrochirus (Bluegill), 96 h: 49.5 mg/l

Acute toxicity to aquatic invertebrates

EC50- Daphnia magna (Water flea), 24 h: 150 mg/l

Acute toxicity to aquatic plants

EC50 - Scenedesmus subspicatus (Algae), 72 h: 204 mg/l

Persistence and degradability: Expected to biodegrade over time.

Bioaccumulation potential: Bioaccumulation potential is low

Mobility in soil: Moves slowly through soil.

Results of PBT and vPvB assessment: This substance is not persistent or very persistent in the environment, nor is it bioaccumulative or very bioaccumulative.

Other adverse effects

Additional ecological information: Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

Not regulated for transport



Section 15. Regulatory Information

Safety, health, and environmental regulations/legislation specific for substance or mixture

US Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: Chemicals in this product are not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: Chemicals in this product are not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is not subject to TSCA 12(b) Export Notification.

Superfund Amendments and Reauthorization Act (SARA)

SARA 313 Information: None of the chemicals in this product are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA Section 311/312 Hazard Categories: None assigned

SARA 302/304 Extremely Hazardous Substance: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substances:

Dimethyl Phthalate (CAS #131-11-3): RQ = 2,268 kg (5,000 lbs)

Clean Air Act (CAA)

Dimethyl Phthalate (CAS #131-11-3) is listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depleters.

This product does not contain any Class 2 Ozone depleters.

Clean Water Act (CWA)

Dimethyl Phthalate (CAS #131-11-3) is listed as a Hazardous Substance under the CWA.

Dimethyl Phthalate (CAS #131-11-3) is listed as a Priority Pollutant under the CWA.

Phthalate Esters are listed as Toxic Pollutants under the CWA.

US State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains no chemical(s) known to the state of California to cause cancer or other reproductive harm.



Other U.S. State Inventories

Dimethyl Phthalate (CAS #131-11-3) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, ID, IL, ME, MA, MN, NJ, NY, PA, WA, WI.

Canada

WHMIS Hazard Symbol and Classification: None allocated

Canadian Controlled Products Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Ingredient Disclosure List (IDL): Dimethyl Phthalate (CAS #131-11-3) is listed on the IDL.

Canadian National Pollutant Release Inventory (NPRI): Dimethyl Phthalate (CAS #131-11-3) listed on the NPRI.

European Economic Community

Labeling (67/548/EEC or 1999/45/EC): None allocated

WGK, Germany (Water danger/protection): 1

Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*"Yes" indicates that all components of this product are in compliance with the inventory requirements administered by the governing country.

*"No" indicates that one or more components of this product are not on the inventory and are not exempt from listing.

Chemical Safety Assessment: For this product a chemical safety assessment was not carried out.



HMIS Rating

Health: 1

Flammability: 1

Reactivity: 0

Personal Protection: C

NFPA Rating

Health: 0

Flammability: 1

Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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