



Material Safety Data Sheet

Dimethyl phthalate

MSDS# 07740

Section 1 - Chemical Product and Company Identification

MSDS Name: Dimethyl phthalate

Catalog Numbers: AC116640000, AC116640010, AC116640050, AC116640250, AC116642500, AC220380000
AC220380000, AC220381000, D65-4

Synonyms: Dimethyl 1,2-benzenedicarboxylate; Phthalic acid, dimethyl ester; DMP; plasticizer; Palatinol M; Fermine; Avolin; Mipax; Dimethyl o-phthalate.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 131-11-3
Chemical Name: Dimethyl phthalate
%: >99
EINECS#: 205-011-6

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! Possible risk of harm to the unborn child. May cause eye, skin, and respiratory tract irritation. Target Organs: Central nervous system, respiratory system, eyes, mucous membranes.

Potential Health Effects

Eye: May cause mild eye irritation.
Dimethyl phthalate has low acute toxicity in experimental animals exposed by the oral, inhalation and dermal routes. In other words, it is not acutely toxic. However, repeated and/or prolonged skin contact may result in the

Skin: absorption of harmful amounts. Dimethyl phthalate was not a sensitizer in guinea pigs and has not been reported to be a sensitizer from its use during WWII as an insect repellent; however, it has been called an allergen in one Russian study of human patch testing.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. Exposure to dimethyl phthalate occurs from spray or mist, rather than from the vapor, unless heat is applied. Intermittent exposure produced blood, liver and kidney changes in rats.

Chronic: Some adverse reproductive effects were seen in animal studies. Few defects occurred when rats were given injections of dimethyl phthalate intraperitoneally on gestational days 5, 10 and 15.

Section 4 - First Aid Measures

Eyes: Get medical aid. Immediately flush eyes with plenty of water for at least 15 minutes.

Skin: Get medical aid. Rinse area with large amounts of water for at least 15 minutes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Autoignition Temperature: 460 deg C (860.00 deg F)

Flash Point: 146 deg C (294.80 deg F)

Explosion Limits: 0.9 @ 180°C
Lower:

Explosion Limits: 8.0%
Upper:

NFPA Rating: health: 1; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid breathing spray or mist.

Storage: Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Dimethyl phthalate	5 mg/m3	5 mg/m3 TWA 2000 mg/m3 IDLH	5 mg/m3 TWA

OSHA Vacated PELs: Dimethyl phthalate: 5 mg/m3 TWA

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless, oily

Odor: slight aromatic odor

pH: Not applicable

Vapor Pressure: 0.00165 mm Hg @ 25 deg C

Vapor Density: 6.69 (air=1)

Evaporation Rate: Negligible.

Viscosity: 17.2 cP 25 deg C

Boiling Point: 282 deg C (539.60°F)

Freezing/Melting Point: 2 deg C (35.60°F)

Decomposition Temperature: Not available

Solubility in water: Negligible

Specific Gravity/Density: 1.189 @ 25°C

Molecular Formula: C10H10O4

Molecular Weight: 194.19

Section 10 - Stability and Reactivity

Chemical Stability:	Stable.
Conditions to Avoid:	Excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 131-11-3: TI1575000
RTECS:	CAS# 131-11-3: Dermal, guinea pig: LD50 = >10 mL/kg; Draize test, rabbit, eye: 119 mg; Oral, mouse: LD50 = 6800 mg/kg;
LD50/LC50:	Oral, rabbit: LD50 = 4400 uL/kg; Oral, rat: LD50 = 6800 mg/kg; Skin, rabbit: LD50 = >20 mL/kg; Skin, rat: LD50 = >4800 mg/kg;
Carcinogenicity:	Dimethyl phthalate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 131-11-3: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 131-11-3: 1

Canada

CAS# 131-11-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 131-11-3 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 131-11-3 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
