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PHARMCO-AAPER
AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

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Dimethyl Phthalate MSDS No. M0083

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: Dimethyl Phthalate

Synonym(s): 1,2-Benzenedicarboxylic Acid, Dimethyl Ester; D.M.P.; Phthalic Acid, Dimethyl Ester; dimethyl benzeneorthocarboxylate; Methyl Phthalate

Molecular Formula: C₆H₄-1,2-(CO₂CH₃)₂

Molecular Weight: 194.19

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient CAS No Percent Hazardous

Dimethyl Phthalate 131-11-3 90 - 100% Yes

3. HAZARDS IDENTIFICATION

WARNING! HARMFUL IF SWALLOWED OR INHALED. VAPOR OR MIST IS IRRITATING TO THE EYES AND UPPER RESPIRATORY TRACT. MAY CAUSE IRRITATION TO SKIN.

NFPA Hazard Ratings: Health - 0, Flammability - 1, Reactivity - 0

NOTE: NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Potential Health Effects

Due to low water solubility and relatively high lipid solubility, DMP is able to accumulate in body tissues. As a result, chronic exposure tends to be more important than acute exposure.

Inhalation: Toxic. Inhalation of vapors irritates the respiratory tract. Symptoms may include coughing, shortness of breath and chest pain. At room temperature the substance has such a low vapor pressure that inhalation of the vapor is unlikely.

Ingestion: Swallowing can cause burning sensation of lips, tongue, mouth; vomiting and diarrhea may occur. Central nervous system effects, including coma, are possible.

Skin Contact: May cause irritation with redness and pain.

Eye Contact: Causes irritation, redness, and pain.

Chronic Exposure: May accumulate in body tissues. May affect central nervous system.

Aggravation of Pre-existing Conditions: No information found.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire:

Flash point: 146C (295F) CC

Autoignition temperature: 490C (914F)

Flammable limits in air % by volume: lcl: 0.9

Explosion: Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Water or foam may cause frothing.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

7. HANDLING AND STORAGE

Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL): 5 mg/m³ (TWA)

-ACGIH Threshold Limit Value (TLV): 5 mg/m³ (TWA)

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details. Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and dust/mist filter may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and dust/mist filter may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. This compound possibly exists in both particulate and vapor phase. A gas/vapor cartridge should be used in

addition to the particulate filter. If the vapor concentration alone exceeds the exposure limits, use a supplied air respirator, because warning properties are unknown for these compounds.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear oily liquid.

Odor: Slight aromatic odor.

Solubility: 0.4% in water @ 32C (90F)

Specific Gravity: 1.19 @ 20C/20C

pH: No information found.

% Volatiles by volume @ 21C (70F): 100

Boiling Point: 282C (540F)

Melting Point: 5.5C (43F)

Vapor Density (Air=1): 6.69

Vapor Pressure (mm Hg): 1 @ 100.3C (212F)

Evaporation Rate (BuAc=1): ca. 0

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong acids or bases, nitrates, and strong oxidizing agents.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

Oral rat LD50: 6800 mg/Kg; skin rabbit LD50: > 20 mL/kg. Investigated as a mutagen, reproductive effector.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient Known Anticipated IARC Category

Dimethyl Phthalate (131-11-3) No No None

12. ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material may leach into groundwater. When released into water, this material may biodegrade to a moderate extent. This material has an experimentally-determined bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.

Environmental Toxicity: This material is expected to be slightly toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Not regulated.

15. REGULATORY INFORMATION

Chemical Inventory Status - Part 1

MSDS 899, Rev 1.1; 07/08, MSZ

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Ingredient TSCA EC Japan Australia
 Dimethyl Phthalate (131-11-3) Yes Yes Yes Yes
 Chemical Inventory Status - Part 2
 --Canada--5
 Ingredient Korea DSL NDSL Phil.
 Dimethyl Phthalate (131-11-3) Yes Yes No Yes
 Federal, State & International Regulations - Part 1
 -SARA 302- -----SARA 313-----
 Ingredient RQ TPQ List Chemical Catg.
 Dimethyl Phthalate (131-11-3) No No Yes No
 Federal, State & International Regulations - Part 2
 -RCRA- -TSCAIngredient
 CERCLA 261.33 8(d)
 Dimethyl Phthalate (131-11-3) 5000 U102 No
 Chemical Weapons Convention: No TSCA 12(b): Yes CDTA: Yes
 SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
 Reactivity: No (Pure/Liquid)
 Australian Hazchem Code: No information found.
 Poison Schedule: No information found.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

Chemical Name	CAS Number	RQ
Dimethyl phthalate	131-11-3	5,000lb

16. OTHER INFORMATION

The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.