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Certified Company



THE POWER OF THREE³

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 MALEATE (DMM)

Section 1 - Product and Company Information

Product Name DIMETHYL MALEATE (DMM)

Section 2 - Composition/Information on Ingredient

Substance Name CAS # SARA 313

DIMETHYL MALEATE 624-48-6 No

Formula C₆H₈O₄

Synonyms Dimethylester kyseliny maleinove (Czech); Dimethyl maleate; Maleic acid, dimethyl ester ; Methyl maleate; Sipomer DMM

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic (USA) Harmful (EU).

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes, respiratory system and skin.

Readily absorbed through skin. Combustible.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLASH POINT 203 °F 95 °C Method: closed cup

AUTOIGNITION TEMP N/A

FLAMMABILITY N/A

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. EXPOSURE HAZARD(S)

Material: Toxic. Irritant.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

Section 9 - Physical/Chemical Properties

Appearance Color: Colorless

Form: Clear liquid

Property Value At Temperature or Pressure

Molecular Weight 144.13 AMU

pH N/A

BP/BP Range 86.0 - 89.0 °C 12 mmHg

MP/MP Range N/A

Freezing Point N/A

Vapor Pressure N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

SG/Density 1.15 g/cm³

Bulk Density N/A

Odor Threshold N/A

Volatile% N/A

VOC Content N/A

Water Content N/A

Solvent Content N/A

Evaporation Rate N/A
Viscosity N/A
Surface Tension N/A
Partition Coefficient N/A
Decomposition Temp. N/A
Flash Point 203 °F 95 °C Method: closed cup
Explosion Limits N/A
Flammability N/A
Autoignition Temp N/A
Refractive Index 1.442
Optical Rotation N/A
Miscellaneous Data N/A
Solubility N/A
N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Materials to Avoid: Acids, Bases, Oxidizing agents, Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Multiple Routes: Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

Harmful if swallowed, inhaled, or absorbed through skin.

TOXICITY DATA

Oral: Rat, 1410 mg/kg; LD50

Skin: Rabbit, 530 UL/KG; LD50

IRRITATION DATA

Eyes: Rabbit, 500 mg;

Remarks: Severe irritation effect

Eyes: Rabbit, 500 mg; 24H

Remarks: Mild irritation effect

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT: Proper Shipping Name: Toxic, liquids, organic, n.o.s.

UN#: 2810

Class: 6.1

Packing Group: Packing Group III

Hazard Label: Toxic substances.

PIH: Not PIH

IATA

Proper Shipping Name: Toxic liquid, organic, n.o.s.

IATA UN Number: 2810

Hazard Class: 6.1

Packing Group: III

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn

Indication of Danger: Harmful.

R: 21/22

Risk Statements: Harmful in contact with skin and if swallowed.

S: 23-36/37

Safety Statements: Do not breathe vapor. Wear suitable protective clothing and gloves.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Toxic (USA) Harmful (EU).

Risk Statements: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements: Readily absorbed through skin. Combustible.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

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: **NONE**

Section 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.