

EMS CATALOG NO: 13280
EMS PRODUCT: (DMP) 2,2-DIMETHOXYPROPANE
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MATERIAL SAFETY DATA SHEET

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FOR PRODUCT AND SALES INFORMATION

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PRODUCT IDENTIFICATION

COMMON NAME: 2,2-Dimethoxypropane
COMMERCIAL NAME(S): Not available.
SYNONYM: Acetone dimethyl Acetal, DMP
CHEMICAL NAME: 2,2-Dimethoxypropane
CHEMICAL FAMILY: Not available.
CHEMICAL FORMULA: C₅H₁₂O₂
CAS#: 77-76-9
RTECS: Not available.
TSCA: TSCA 8(b) inventory: 2,2-Dimethoxypropane
CI#: Not available.

COMPOSITION AND INFORMATION ON INGREDIENTS

NAME: {2,2-}Dimethoxypropane

CAS#: 77-76-9

TWA(mg/m³):

STEL (mg/m³):

% BY WEIGHT: 100

TOXICOLOGICAL DATA ON INGREDIENTS: 2,2-Dimethoxypropane

ORAL (LD50): Acute: Not available.

DERMAL (LD50): Acute: Not available.

VAPOR (LC50): Acute: Not available.

HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS: Very hazardous in case of inhalation (lung irritant). Hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion.

POTENTIAL CHRONIC HEALTH EFFECTS:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

FIRST AID MEASURES

EYE CONTACT: Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

SKIN CONTACT: After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and grain. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

SERIOUS SKIN CONTACT: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

INHALATION: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

SERIOUS INHALATION: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult,

administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

INGESTION: Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

SERIOUS INGESTION: Not available.

FIRE AND EXPLOSION DATA

FLAMMABILITY OF THE PRODUCT: Flammable.

AUTO-IGNITION TEMPERATURE: Not available.

FLASH POINTS: Closed Cup: -11°C(12.2°F).

FLAMMABLE LIMITS: Not available.

PRODUCTS OF COMBUSTION: These products are carbon oxides (CO, CO₂)

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: Not available.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:

RISKS OF EXPLOSION OF THE PRODUCT IN PRESENCE OF MECHANICAL IMPACT: Not available.

RISKS OF EXPLOSION OF THE PRODUCT IN PRESENCE OF STATIC DISCHARGE: Not available.

FIRE FIGHTING MEDIA AND INSTRUCTIONS: Flammable Liquid.

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

SPECIAL REMARKS ON FIRE HAZARDS: Not available.

SPECIAL REMARKS ON EXPLOSION HAZARDS: Not available.

ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

LARGE SPILL: Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources.

HANDLING AND STORAGE

PRECAUTIONS: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

STORAGE: Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than 37.8°C (100°F).

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the workstation location.

PERSONAL PROTECTION: Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

EXPOSURE LIMITS: Not available.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: Liquid

ODOR: Not available.

TASTE: Not available.

COLOR: Colorless

MOLECULAR WEIGHT: 104.15 g/mole

pH (1% SOLN/WATER): Not available.

BOILING POINT: 80°C (176°F)

MELTING POINT: Not available.

CRITICAL TEMPERATURE: Not available

SPECIFIC GRAVITY: Not available

VAPOR PRESSURE: Not available

VAPOR DENSITY: Not available

VOLATILITY: Not available

ODOR THRESHOLD: Not available

WATER/OIL DIST. COEFF.: Not available
IONICITY (IN WATER): Not available
DISPERSION PROPERTIES: Not available
SOLUBILITY: Not available

STABILITY AND REACTIVITY DATA

STABILITY: This product is stable.
INSTABILITY TEMPERATURE: Not available
CONDITIONS OF INSTABILITY: Not available
INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Reactive with oxidizing agents, acids.
CORROSIVITY: Non-corrosive in presence of glass
SPECIAL REMARKS ON REACTIVITY: Not available
SPECIAL REMARKS ON CORROSIVITY: Not available
POLYMERIZATION: No.

TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
TOXICITY TO ANIMALS:
(LD50): Not available.
(LC50): Not available.
CHRONIC EFFECTS ON HUMANS: Not available
OTHER TOXIC EFFECTS ON HUMANS: Very hazardous in case of inhalation (lung irritant). Hazardous in case of skin contact (irritant, sensitizer), of ingestion.
SPECIAL REMARKS ON TOXICITY TO ANIMALS: Not available.
SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS: Not available.
SPECIAL REMARKS ON OTHER TOXIC EFFECTS ON HUMANS: Not available.

ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.
BOD5 AND COD: Not available.
PRODUCTS OF BIODEGRADATION: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
TOXICITY OF THE PRODUCTS OF BIODEGRADATION: The products of degradation are less toxic than the product itself.
SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: Not available.

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

TRANSPORT INFORMATION

DOT CLASSIFICATION: Class 3: Flammable liquid.

IDENTIFICATION: Flammable Liquid, n.o.s. (2,2-Dimethoxypropane) : UN1993 PG II

SPECIAL PROVISIONS FOR TRANSPORT: Not available.

OTHER REGULATORY INFORMATION

FEDERAL AND STATE REGULATIONS:

TSCA 8 (b) INVENTORY: 2,2-Dimethoxypropane

OTHER REGULATIONS:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

OTHER CLASSIFICATIONS:

WHMIS (CANADA): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F)

DSCLA (EEC): R12-Extremely flammable.

R20/21/22-Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38-Irritating to eyes, respiratory system and skin.

HMIS (U.S.A.):

HEALTH HAZARD:	2
FIRE HAZARD:	3
REACTIVITY:	0
PERSONAL PROTECTION:	h

NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)

HEALTH:	2
FLAMMABILITY:	3
REACTIVITY:	0
SPECIFIC HAZARD:	

PROTECTIVE EQUIPMENT:

Gloves

Lab Coat.

Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Wear appropriate respirator when ventilation is inadequate.

Splash goggles.