

MATERIAL SAFETY DATA SHEET**MOPS**

PRODUCT CODE NUMBER(S): 5210-5

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: MOPS;
3-Morpholinopropanesulphonic acid
Chemical Family: Organic chemical
Chemical Formula: C₇H₁₅NO₄S
Product Use: Laboratory reagent
Manufacturer's Name and Address:
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HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients	%	TLV Units	CAS No.
MOPS	~99	Not established	1132-61-2

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White powder; odourless.
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): Not available
Vapour Density (Air = 1): Not available
Evaporation Rate: Not available
Boiling Point (degrees C): Not available
Melting Point (degrees C): 277°C
pH: 2.5 (1%, aqueous)
Specific Gravity: Not available
Coefficient of Water/Oil distribution: Not available

SHIPPING DESCRIPTION

UN: Not regulated
T.D.G. Class: Not regulated
Pkg. Group: Not regulated

REACTIVITY DATA

Chemical Stability: Stable under normal temperatures and pressures.
Incompatibility with other substances: May react violently or explosively with strong oxidizers or strong bases
Reactivity: Avoid excessive heat, ignition sources, generation of dust, incompatible materials.
Hazardous Decomposition Products: CO_x, SO_x, NO_x

FIRE AND EXPLOSION DATA

Flammability: May be combustible if strongly heated. As with most organic compounds, fine dust dispersed in air in

the presence of an ignition source is a potential dust explosion hazard.

Extinguishing Media: Use an extinguisher appropriate to the surrounding material that is burning. Fight fire from upwind, from a safe distance. Firefighters should wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.

Flash Point (Method Used): 116°C

Autoignition Temperature: Not available

Upper Flammable Limit (% by volume): Not available

Lower Flammable Limit (% by volume): Not available

Hazardous Combustion Products: CO_x, SO_x, NO_x

Sensitivity to Impact: None identified

Sensitivity to Static discharge: As with most organic powders, mixtures of dust with air may be sensitive under certain conditions, when ignited by an electrostatic or other high-voltage spark, or other ignition source.

TOXICOLOGICAL PROPERTIES AND HEALTH DATA

To the best of our knowledge, the physical, chemical and toxicological properties of this substance have not yet been thoroughly investigated.

Toxicological Data:

LD₅₀: Not available

LC₅₀: Not available

Effects of Acute Exposure to Product:

Inhaled: No information available. Inhalation of large amounts may be irritating, causing coughing, choking, shortness of breath. May be harmful.

In contact with skin: No information available. May cause irritation with itching, redness, pain. Will stain skin.

In contact with eyes: No information available. May cause irritation, with temporary redness, tearing, pain

Ingested: No information available. Should be considered harmful if ingested. May cause gastrointestinal irritation, nausea, vomiting.

Effects of Chronic Exposure to Product:

Carcinogenicity: No evidence of carcinogenicity.

Teratogenicity: No information available

Reproductive Effects: No information available

Mutagenicity: No information available

Synergistic Products: No information available

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation recommended

Respiratory Protection: Dust mask. NIOSH approved half-face dust/mist respirator for dusty conditions. For high or unknown concentrations, as in fire or spill conditions, pos-

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itive-pressure, full face-piece self contained breathing apparatus.

Eye Protection: *Chemical safety goggles*

Skin Protection: *Rubber or plastic gloves. Plastic apron, and sleeves sufficient to prevent contact.*

Other Personal Protective Equipment: *Safety shower and eye-wash fountain in work area.*

Leak and Spill Procedure: *Ventilate area. Eliminate all ignition sources. Cleanup personnel must be thoroughly trained in the handling of hazardous materials, and must wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes. If dust is present, use non-sparking tools. Mix with inert absorbent, gather up in a manner that does not generate dust, and collect in suitable containers for reclamation or disposal. Wash the site thoroughly with water and detergent.*

Waste Disposal: *Follow all federal, provincial and local regulations for disposal.*

Handling Procedures and Equipment: *Workers must be thoroughly trained in the hazards of this substance and its safe use, and must wear appropriate protective equipment and clothing. Use routine safe handling procedures. Use the smallest amount possible for the purpose, in an area with adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Presence of dust can be an explosion hazard. If dust is present, use non-sparking tools, and ground and bond containers where static electricity may be generated. Wash thoroughly after handling.*

Storage Requirements: *Store in suitable (non-metallic), labelled containers, in a cool, dry, well-ventilated area, out of direct sunlight, and away from all ignition sources and incompatible materials. Keep containers tightly closed.*

Prepared by: Caledon Laboratories Ltd. (905) 877-0101

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FIRST AID MEASURES

Specific Measures:

Eyes: *Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5-10) minutes, or until no trace of chemical remains. Get medical advice if irritation develops.*

Skin: *Remove contaminated clothing. Brush or wipe off dry material. Flush skin with plenty of running water until no evidence of chemical remains. If irritation develops get medical attention.*

Inhalation: *Remove to fresh air. Give oxygen and get medical attention for any breathing difficulty.*

Ingestion: *If the victim is alert and not convulsing, rinse mouth thoroughly with water and give 2 to 4 glasses of water to drink to dilute. If victim feels unwell, or if a large amount has been ingested, get medical attention.*

REFERENCES USED

CCINFO disc

Sax, Lewis: Hawley's Condensed Chemical Dictionary, 11th ed., 1987

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: *July 22, 1991*

Revision: *December 2010*

MSDS: *5210-5*

Proposed WHMIS Designation: *Insufficient information available*