

MATERIAL SAFETY DATA SHEET (MSDS)

EM Science
M A T E R I A L S A F E T Y D A T A S H E E T

Section I Product Identification and Use

Manufacturer:
EM SCIENCE

For More Information Call
856-423-6300 Technical Service

Conditions of Flammability: Flammable. Vapour may travel to distant sources of ignition and flashback.

Extinguishing Media: Water, carbon dioxide, foam, dry chemical

Flash point / method: 12°C/cc

UEL: 44.0 %

LEL: 5.5 %

Autoignition Temperature: 385°C

Hazardous Combustion Products: CO_x, formaldehyde

Explosion data - sensitivity to mechanical impact: No

- **sensitivity to static discharge:** May be ignited by static discharge

Section V Reactivity Data

Conditions of instability: Normally stable

Incompatibilities: Acids, acid chlorides, acid anhydrides, oxidizers: nitrates, perchlorates, acetaldehyde, ethylene oxide

Conditions of reactivity: Normally stable

Hazardous decomposition products: CO_x, formaldehyde

Section VI Toxicological Properties / Health Hazard Data

Route of entry:

-**skin contact:** Irritates

-**skin absorption:** Toxic

-**eye contact:** Irritates

-**inhalation:** Toxic

-**ingestion:** Toxic

LC₅₀: 64000 ppm/4H (ihl-rat) (methanol)

LD₅₀: 5628 mg/kg (orl-rat) (methanol)

Exposure Limits: TLV-TWA 200 ppm; TLV-STEL 250 ppm (methanol)

Affects of Acute Exposure: Methanol is irritating to the skin, eyes and respiratory passages. Inhalation may cause burning sensation, coughing, wheezing, laryngitis, sneezing, shortness of breath, headache, nausea, vomiting, convulsions, dizziness or cardiac depression. Exposure may cause peripheral neuritis. Ingestion may cause extreme gastrointestinal upset and may result in blindness.

Affects of Chronic Exposure: This product is a cumulative poison. It can cause damage to the central nervous system, kidneys, liver or heart.

Irritancy: Standard Draize Test: skin, rabbit 20 mg/24H - moderate; eye, rabbit 40 mg - moderate (methanol)

Sensitization to Product: No information available

Carcinogenicity: No information available

Reproductive Toxicity: May cause reproductive effects; references cited: RTECS# PC1400000 (methanol)

Teratogenicity: May cause teratogenic effects; references cited RTECS# PC1400000 (methanol)

Mutagenicity: May cause mutagenic effects; references cited RTECS# PC1400000 (methanol)

Toxicologically Synergistic Products: None found

Section VII First aid measures

Skin: Flush the contact area with lukewarm running water for at least 15 minutes. Remove contaminated clothing, taking care not to spread the chemical. If contamination is extensive, remove clothing under running water. Discard or decontaminate clothing under running water. Discard or decontaminate clothing before use. Unless contact has been slight, seek medical attention. Seek medical attention if irritation persists.

Eye: Flush the contaminated eye(s) for at least 15 minutes with lukewarm running water, holding the eyelids open. Take care not to rinse contaminated water into the non-affected eye. Always seek medical attention for accidents involving the eyes.

Inhalation: Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. If conscious, induce vomiting. Have victim drink 200-400 ml of water to dilute. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Section VIII Preventive Measures

Engineering Controls: Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification. Administrative controls and personal protective equipment may also be required. Use a non-sparking grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Provide sufficient local exhaust and general ventilation to maintain levels below 10 % of the lower explosive limit.

Personal protective equipment:

-**gloves:** Rubber, nitrile

-**respiratory protection:** Fume hood, approved respirator as appropriate

-**eye protection:** Chemical safety goggles or face shield

-**clothing:** Plastic apron, sleeves and boots as appropriate

Storage Requirements: Store in suitable labelled containers. Keep containers tightly closed when not in use and when empty. Protect from damage. Store in a cool, dry, well-ventilated area, out of direct sunlight. Store away from ignition sources. Use approved flammable liquid storage containers in the work area. Ground drums and bond transfer containers. Use non-sparking tools. Keep material away from sparks, flames and other ignition sources. Post "No Smoking" signs in area of use.

Handling Procedures and Equipment: Keep away from materials which can burn. Avoid generating mist. Follow routine safe handling procedures.

Leak or Spill Clean-up: Before dealing with spillages take necessary protective measures, inform others to keep at a safe distance and, for flammable materials, shut off all possible sources of ignition. Absorb on inert absorbent, transfer to container and arrange removal by disposal company. Wash site of

spillage thoroughly with water and detergent. Ventilate area to dispel residual vapour.

Disposal: Follow all federal, provincial and local regulations for disposal. Use only licensed disposal and waste hauling companies. Disposal of small amounts of spilled material may be handled as described under "Leak or Spill Cleanup". Large spills must be dealt with separately and must be handled by qualified disposal companies.

Special Shipping Information: Follow all TDG regulations and see classification in Section I

Section IX Preparation Information

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