

MSDS # 252.10

Dimethyl Sulphoxide



Section 1: Product and Company Identification

Dimethyl Sulphoxide

Synonyms/General Names: DMSO**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300**CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

*Clear, colorless liquid; slight sulfurous odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	2
Reactivity	0

WARNING! Combustible liquid and body tissue irritant. May be absorbed through skin.

Combustible liquid, keep away from all ignition sources.

Target organs: Eyes, skin, blood, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Dimethyl Sulphoxide (67-68-5), 99%

Section 4: First Aid Measures

*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Aspiration hazard.** Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Combustible Liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.



Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Area [Green Storage] with other similar materials and away from any strong oxidizers. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Dimethyl Sulphoxide: OSHA PEL: N/A; ACGIH TLV: N/A; STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	(CH ₃) ₂ SO.	Appearance	Clear, colorless liquid.
Molecular weight	88.11.	Odor	Slightly sulfurous odor.
Specific Gravity	1.1 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	2.71.	Solubility	Soluble.
Melting Point	19°C.	Evaporation rate	7.5 (Butyl acetate = 1).
Boiling Point/Range	189°C.	Partition Coefficient	-2.03 (log P _{OW}).
Vapor Pressure (20°C)	0.41 mm Hg.	pH	N/A.
Flash Point:	95°C (203°F) OC.	LEL	2.6%.
Autoignition Temp.:	215°C (419°F).	UEL	42 %.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use. Avoid heat and ignition sources.

Incompatibility: May react or be incompatible with oxidizing materials, acids, bases, alkalis.

Shelf life: Poor shelf life, store in a cool, dry environment. Hygroscopic.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Stinging pain, watering of eyes, inflammation of eyelids and conjunctivitis. **Skin:** Insensitivity to pain, feel of coolness or cold, skin looks white and feels hard and cold. **Ingestion:** Breath has sweet, organic odor, mental confusion, drowsiness, nausea, vomiting and headache. **Inhalation:** Rapid irregular breathing, headache, fatigue, mental confusion, nausea and vomiting, giddiness and poor judgment, convulsions and death.

Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.

Sensitization: none expected

Dimethyl Sulphoxide: LD50 [oral, rat]; 14,500 mg/kg; LC50 [rat]; 40,250 mg/l 48 hours); LD50 Dermal [rabbit]; >5000 mg/kg. Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial):	LC50- Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h EC50 - Daphnia pulex (Water flea) - 27,500 mg/l
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Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not Regulated by DOT.	Canada TDG:	Not Regulated by TDG.
DOT Hazard Class:		Hazard Class:	
Identification Number:		UN Number:	

Section 15: Regulatory Information

EINECS: Listed (200-664-3).	WHMIS Canada: B3: Combustible liquid.
TSCA: All components are listed or are exempt.	California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: February 4, 2009

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