



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

221 Rochester Street  
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MSDS No.: DD0043  
Effective Date: January 4, 2007

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Dimethyl Sulfoxide
<b>Chemical Synonyms</b>	DMSO; Methyl Sulfoxide
<b>Formula</b>	C <sub>2</sub> H <sub>6</sub> SO
<b>Unit Size</b>	up to 3.785 Lt.
<b>C.A.S. No.</b>	67-68-5



**CHEMTREC**  
800-424-9300  
Day 585-226-6177

<b>Health</b>	1
<b>Fire</b>	2
<b>Reactivity</b>	1

**NFPA**

<b>HAZARD RATING</b>				
MINIMAL	SLIGHT	MODERATE	SERIOUS	SEVERE
0	1	2	3	4

**HMIS\***

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Methyl sulfoxide	100%	None established.

**WARNING! COMBUSTIBLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED, INHALED OR**

**ABSORBED THROUGH SKIN.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	18.4°C (64°F)	Specific Gravity (H <sub>2</sub> O = 1)	1.10
Boiling Point (°F)	189°C (372°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	0.42 at 20°C (68°F)	Evaporation Rate (Butyl acetate =1)	4.3
Vapor Density (Air=1)	2.7		
Solubility in Water	Miscible in water.		
Appearance & Odor	Clear, colorless liquid; garlic-like odor. Hygroscopic.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	89°C (192°F) CC	<b>Flammable Limits in Air % by Volume</b>	Lower	Upper
			2.6%	42 - 63%
<b>Extinguisher Media</b>	Water spray, carbon dioxide, dry chemical or appropriate foam.			

### SPECIAL FIREFIGHTING PROCEDURES

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Autoignition Temperature: 215°C (419°F)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Combustible liquid. Moderate fire hazard when exposed to heat or flame. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Sealed containers may erupt when heated. Sensitive to static discharge. Vapors can flow along surfaces to distant ignition source and flash back. Emits toxic fumes under fire conditions.

## SECTION V HEALTH HAZARD DATA DD0043

**Threshold Limited Value** None established by ACGIH 2001. Toxicity data: orl-rat LD50: 14,500 mg/Kg. Irritation data: (std Draize-rabbit): Skin: 500 mg/24 hour, mild.

**Effects of Overexposure**  
**INGESTION:** Causes irritation to gastrointestinal tract. May cause abdominal pain, drowsiness, chills and chest pain. Symptoms may include nausea, vomiting and diarrhea. **INHALATION:** Causes irritation to the respiratory tract. May cause allergic reaction in sensitive individuals. Symptoms may include coughing and shortness of breath. **EYES:** Causes irritation, redness and pain. May cause blurred vision. **SKIN:** Readily absorbed through skin. Causes irritation. May cause scaling. Symptoms include redness, itching and pain. Garlic-like taste and odor may develop on the breath and skin. Transient disturbances of color vision, photophobia, headache, diarrhea and dermatitis may result from skin applications. Target organs: Liver, kidneys.

**Emergency and First Aid Procedures**  
**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Hygroscopic material. Keep away from heat and open flame, incompatible materials.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Strong oxidants, acylhalides, arylhalides, bromobenzoyl acetanilide, magnesium perchlorate, perchloric acid and sodium hydroxide.

**Hazardous Decomposition Products** Sulfur dioxide. Hazardous thermo-oxidative degradation products from DMSO include formaldehyde, methyl mercaptan and sulfur dioxide.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X
	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Use non-sparking tools and equipment. Cover with inert dry material, sweep up and place in covered containers. Ventilate area and wash spill site with soap and water after material pickup is complete. Do not flush to sewer.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in an approved incinerator or contract with a licensed waste disposal service. Avoid contaminating sewers and waterways with this material.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator air-supplied or self-contained breathing apparatus.

<b>Ventilation</b>	<b>Local Exhaust</b>	Recommended.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	Recommended.	<b>Other</b>	Adequate to maintain below exposure limit.

**Protective Gloves** Rubber. **Eye Protection** Chemical safety goggles.

**Other Protective Equipment** Faceshield, lab coat and apron, eye wash station, safety shower, proper gloves, ventilation hood, fire extinguisher.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry, well-ventilated area, away from sources of heat or ignition. Do not breathe vapor or spray. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Avoid prolonged or repeated exposure. Use only with adequate ventilation. Remove and wash contaminated clothing.

**D.O.T.** Non Regulated.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

<b>Revision No.</b> 2	<b>Date</b> 01/04/07	<b>Approved</b> James A. Bertsch	<b>Chemical Safety Coordinator</b> JAB
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