

# Material Safety Data Sheet



## MDG Dense Fluid

### Section 1. Chemical Product and Company Identification

<b>Common Name</b>	: <b>MDG Dense Fluid</b>	<b>Code</b>	: DF-B2.5, DF-C25, DF-B5, DF-205
<b>Supplier/ Manufacturer</b>	: MDG Fog Generators Ltd. 5639 Christophe-Colomb, Montréal, QC H2S 2E8	<b>MSDS#</b>	: Not available.
<b>Synonym</b>	: Not available.	<b>Validation Date</b>	: <b>10/11/2002.</b>
<b>Trade name</b>	: Not available.	<b>Print Date</b>	: 10/11/2002.
<b>Material Uses</b>	: Glycol based fog fluid.	<b>Responsible Name</b>	: <b>Kemika</b>
		<b>In Case of Emergency</b>	: Canada: CANUTEC-1-613-996-6666 US: CHEMTREC-1-800-424-9300

### Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
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No hazardous ingredient.

### Section 3. Hazards Identification

**Physical State and Appearance** : Liquid.

**Emergency Overview** : No specific hazard.

**Routes of Entry** : Absorbed through skin. Eye contact. Inhalation. Ingestion.

#### Potential Acute Health Effects

**Eyes** : Slightly hazardous in case of eye contact (irritant).

**Skin** : Non-irritant for skin.

**Inhalation** : Slightly hazardous in case of inhalation (lung irritant).

**Ingestion** : Not available.

**Potential Chronic Health Effects** : **CARCINOGENIC EFFECTS**: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.  
**MUTAGENIC EFFECTS**: Not available.  
**TERATOGENIC EFFECTS**: Not available.

**Medical Conditions Aggravated by Overexposure** : Repeated or prolonged exposure is not known to aggravate medical condition.

**Overexposure /Signs/Symptoms** : Not available.

[See Toxicological Information \(section 11\)](#)

### Section 4. First Aid Measures

**Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact** : Wash with soap and water. Cold water may be used. Get medical attention if irritation develops.

**Inhalation** : In case of prolonged (hours) inhalation, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Notes to Physician** : Not available.

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## Section 5. Fire Fighting Measures

- Flammability of the Product** : Non-flammable according to HCS and WHMIS.
- Autoignition Temperature** : Not available.
- Flash Points** : CLOSED CUP: >121°C (249.8°F). (Tagliabue.)
- Flammable Limits** : Not available.
- Products of Combustion** : These products are carbon oxides (CO, CO<sub>2</sub>).
- 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** : Use extinguishing media suitable for surrounding materials.
- Protective Clothing (Fire)** : Be sure to use an approved/certified respirator or equivalent.
- Special Remarks on Fire Hazards** : Not available.
- Special Remarks on Explosion Hazards** : Not available.

## Section 6. Accidental Release Measures

- Small Spill and Leak** : Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.** Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- Large Spill and Leak** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. **Neutralize the residue with a dilute solution of sodium carbonate.** Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7. Handling and Storage

- Handling** : When manipulating large quantities, avoid breathing vapors or spray mists.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8. Exposure Controls, Personal Protection

- Engineering Controls** : When manipulating large quantities, provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

### Personal Protection

**Eyes** : Safety glasses.

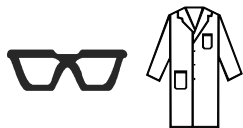
**Body** : Lab coat.

**Respiratory** : Not required. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

**Hands** : Not required. Use latex gloves if prolonged or frequent contact occur.

**Feet** : Not applicable.

### Protective Clothing (Pictograms)



- Personal Protection in Case of a Large Spill** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

### Product Name

Dense Fog Fluid (Based on data for the main ingredient).

### Exposure Limits

AIHA WEEL (United States, 2000). TWA: 10 mg/m<sup>3</sup> Form: Aerosol TWA: 50 ppm Form: Total

## Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	: Liquid.
<b>Color</b>	: Colorless.
<b>Odor</b>	: Characteristic.
<b>Taste</b>	: Not available.
<b>Molecular Weight</b>	: Not applicable.
<b>Molecular Formula</b>	: Not applicable.
<b>pH (1% Soln/Water)</b>	: 3.8 [Acidic.]
<b>Boiling/Condensation Point</b>	: >190°C (374°F)
<b>Melting/Freezing Point</b>	: Weighted average: -45.25°C (-49.5°F)
<b>Critical Temperature</b>	: Not available.
<b>Specific Gravity</b>	: 1.044 (Water = 1)
<b>Vapor Pressure</b>	: 0.003 kPa (0.02 mmHg) (at 20°C)
<b>Vapor Density</b>	: 2.91 (Air = 1)
<b>Volatility</b>	: 100% (w/w).
<b>Odor Threshold</b>	: Not available.
<b>Evaporation Rate</b>	: 0.004 compared to Butyl acetate.
<b>VOC</b>	: 84 (%)
<b>Viscosity</b>	: Dynamic: 17.5 cP
<b>LogK<sub>ow</sub></b>	: Not available.
<b>Ionicity (in Water)</b>	: Amphoteric.
<b>Dispersion Properties</b>	: See solubility in water, methanol, acetone.
<b>Solubility</b>	: Easily soluble in cold water, hot water, methanol, acetone.
<b>Physical Chemical Comments</b>	: Not available.

## Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	: The product is stable.
<b>Conditions of Instability</b>	: Not available.
<b>Incompatibility with Various Substances</b>	: Reactive with oxidizing agents, acids.
<b>Hazardous Decomposition Products</b>	: None known.
<b>Hazardous Polymerization</b>	: Will not occur.

## Section 11. Toxicological Information

<b>Chronic Effects on Humans</b>	: CARCINOGENIC EFFECTS: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
<b>Other Toxic Effects on Humans</b>	: Slightly hazardous in case of eye contact (irritant), of inhalation (lung irritant). Non-irritant for skin.
<b>Special Remarks on Toxicity to Animals</b>	: Not available.
<b>Special Remarks on Chronic Effects on Humans</b>	: Not available.
<b>Special Remarks on Other Toxic Effects on Humans</b>	: Not available.

## Section 12. Ecological Information

<b>BOD and COD</b>	: Not available.
<b>Biodegradable/OECD</b>	: Not available.
<b>Mobility</b>	: Not available.
<b>Products of Degradation</b>	: These products are carbon oxides (CO, CO <sub>2</sub> ) and water.
<b>Toxicity of the Products of Biodegradation</b>	: The product itself and its products of degradation are not toxic.

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Special Remarks on the Products of Biodegradation : Not available.

### Section 13. Disposal Considerations

Waste Information : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Stream : Not available.

Consult your local or regional authorities.

### Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
DOT Classification	Not regulated.	Not applicable.	Not applicable.	Not applicable.		-
TDG Classification	Not regulated.	Not applicable.	Not applicable.	Not applicable.		-
IMDG Class	Not regulated.	Not applicable.	Not applicable.	Not applicable.		-
IATA-DGR Class	Not regulated.	Not applicable.	Not applicable.	Not applicable.		-

### Section 15. Regulatory Information

HCS Classification : Not controlled under the HCS (United States).

U.S. Federal Regulations : TSCA 8(b) inventory: Components listed.

SARA 302/304/311/312 extremely hazardous substances: Not listed.  
 SARA 302/304 emergency planning and notification: Not listed.  
 SARA 302/304/311/312 hazardous chemicals: Not listed;  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification. Not listed.  
 SARA 313 toxic chemical notification and release reporting: Not listed.  
 Clean Water Act (CWA) 307: Not listed.  
 Clean Water Act (CWA) 311: Not listed.  
 Clean Air Act (CAA) 112 accidental release prevention: Not listed.  
 Clean Air Act (CAA) 112 regulated flammable substances: Not listed.  
 Clean Air Act (CAA) 112 regulated toxic substances: Not listed.

State Regulations :

California Prop. 65: Not listed.

WHMIS (Canada) : Not controlled under WHMIS (Canada).

CEPA DSL: Components listed.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. The MSDS contains all the information proposed in the American National Standard Institute Z400.1.

### Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health	0
Fire Hazard	0
Reactivity	0
Personal Protection	B

National Fire Protection Association (U.S.A.)



References : Not available.

Other Special Considerations : Not available.

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Version : 6

**Notice to Reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.