

MIDWEST INDUSTRIAL SUPPLY, INC.  
P. O. BOX 8431  
CANTON, OHIO 44711 U.S.A.

Emergency Phone Numbers: 330-456-3121

# ICE FIGHTER™ D

## MATERIAL SAFETY DATA SHEET

### SECTION I -- IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

**TRADE NAME:** ICE FIGHTER™ D  
**CHEMICAL NAME:** DIETHYLENE GLYCOL BASED WINTER AGENT  
**SYNONYMS:** WINTER OPERATING AGENT  
**CHEMICAL FAMILY:** GLYCOLS  
**MOLECULAR WEIGHT:** N/A  
**FORMULA:** DEG SOLUTION WITH PROPRIETARY INGREDIENTS  
**CAS REGISTRY NO:** PRODUCT A BLEND - NO NUMBER ASSIGNED.

### SECTION II -- COMPOSITION/INFORMATION ON INGREDIENTS

<u>NAME</u>	<u>CAS REG. NO.</u>	<u>WT. %</u>
DIETHYLENE GLYCOL	111-46-6	>20%

### SECTION III -- HAZARDS IDENTIFICATION

**DIETHYLENE GLYCOL** Toxic by ingestion  
Human oral lethal dose approximately 2 ounces (65ml or ¼ cup) of diethylene glycol.

### SECTION IV -- FIRST AID MEASURES

**EYES:** Flush eyes with flowing water at least 15 minutes, get medical attention.  
**INHALATION:** Move to fresh air if effects occur, and get medical attention.  
**SKIN:** Flush with large amount of water or wash with soap and water.  
Seek medical attention if irritation persists.  
**INGESTION:** Do not induce vomiting. Consult medical personnel immediately.  
(Never give fluids or induce vomiting if patient is unconscious or having convulsions.)  
**NOTE TO PHYSICIAN:** Due to structural similarity and clinical data, this material may have mechanism of intoxication similar to ethylene glycol. Based on this, treatment similar to ethylene glycol intoxication may be beneficial. In cases where several ounces have been ingested, consider the use of ethanol and hemodialysis in treatment. Consult standard literature for details of treatment.

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### SECTION V -- FIRE FIGHTING MEASURES

**FLASH POINT (TEST METHOD):** N/D

**EXTINGUISHING MEDIUM:** Water fog, dry foam, CO<sub>2</sub>, dry chemical, alcohol resistant foams are preferred. DO NOT use direct water stream.

**SPECIAL FIREFIGHTING PROCEDURES:** Avoid breathing vapors or fumes. Wear self contained breathing apparatus and turn out gear. Fight fire from protected area; keep all unnecessary personnel from entry. Burning liquids may be extinguished by dilution with water.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Closed containers may rupture from gas generation in a fire.

### SECTION VI - ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK PROCEDURES:**  
Dike and control spill. Transfer liquid to containers for recovery or disposal. Keep spills out of municipal sewers and open bodies of water. Dispose on collected materials per local, state and federal regulations.

### SECTION VII HANDLING AND STORAGE

**STORAGE:** Keep in a cool, dry, ventilated storage area and in closed containers.

**HANDLING:** Practice reasonable caution to avoid skin and eye contact. Avoid swallowing; diethylene glycol is toxic by ingestion. Avoid breathing vapors from hot material.

### SECTION VIII -- EXPOSURE CONTROL/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** If respiratory irritation is experienced, use an approved air-purifying respirator.

**VENTILATION:** Diethylene glycol 10mg/m<sup>3</sup> TWA (8 hrs) AIHA  
Good general ventilation should be sufficient. Local exhaust ventilation may be necessary for some operations.

**EYE PROTECTION:** Chemical splash goggles recommended.

**PROTECTIVE CLOTHING:** Impervious gloves recommended.

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### SECTION IX -- PHYSICAL AND CHEMICAL PROPERTIES

**BOILING/MELTING POINT @ 760 mm Hg:** > 212°F (100°C)  
**VAPOR PRESSURE mm Hg @ 20°C:** N/D  
**SPECIFIC GRAVITY OR BULK DENSITY:** 1.05 – 1.07  
**SOLUBILITY IN WATER:** Complete  
**APPEARANCE:** Blue tinted liquid  
**ODOR:** Slight odor  
**pH:** 6 - 8

### SECTION X -- STABILITY AND REACTIVITY

**STABILITY:** Stable  
**MATERIALS TO AVOID:** Oxidizing materials, strong acids and strong bases  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Burning can produce aldehydes, alcohols, ethers carbon dioxide, and carbon monoxide..  
**HAZARDOUS POLYMERIZATION:** Does not occur  
**CONDITIONS TO AVOID:** Heat, sparks, open flame.  
**OXIDIZER:** No

### SECTION XI -- TOXICOLOGICAL INFORMATION

#### HMIS

#### NFPA

Health:	1	Reactivity:	0	Health:	1	Reactivity:	0
Flammability:	1	Special:	-	Flammability:	1	Special:	-

**DANGER:** **HARMFUL OR FATAL IF SWALLOWED, CONTAINS DIETHYLENE GLYCOL. MAY CAUSE KIDNEY AND NERVOUS SYSTEM DAMAGE.**

**TOXICOLOGICAL DATA:** **Human oral lethal dose approximately 2 ounces (65ml or ¼ cup) of diethylene glycol.**  
Rat , oral: LD50 = 25,244 mg/kg  
Skin, rabbit: LD50 = 12,510 mg/kg  
Rat, inhalation: LC50 ≥ 4.4 mg/L (4 hours)

### SECTION XI -- TOXICOLOGICAL INFORMATION (continued)

#### EFFECTS OF OVEREXPOSURE:

##### ACUTE:

##### **EYES:**

May cause slight irritation to eyes.

##### **SKIN:**

Prolonged or repeated exposure is not likely to cause irritation.

##### **INHALATION:**

At room temperature, exposures are likely due to physical properties; higher temperatures may generate vapor levels sufficient to cause adverse effects.

##### **INGESTION:**

Single dose oral toxicity is moderate. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of larger amounts may cause injury, even death.

##### **SKIN ABSORPTION:**

A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. Repeated skin exposures may result in absorption of harmful amounts.

##### CHRONIC:

##### **SYSTEMIC & OTHER EFFECTS:**

Repeated ingestion may cause severe kidney and also liver and gastrointestinal effects. Signs and symptoms of excessive exposure may be central nervous system effects, nausea and/or vomiting, anesthetic or narcotic effects. Reports of kidney failure and death in burn patients suggest that diethylene glycol may have been a factor. The use of topical applications containing diethylene glycol may not be appropriate in severely burned patients or individuals with impaired renal function. Observations in animals include formation of bladder stones after repeated oral doses.

Studies indicate that diethylene is a teratogen and a tumorigen. Testing of oral doses of diethylene glycol on mice and rats indicates that there is an occurrence of birth defects of offspring born to mothers who have ingested diethylene glycol during pregnancy. There is also evidence that diethylene glycol may lead to an increased occurrence of tumors.

### SECTION XII -- ECOLOGICAL INFORMATION

When released into environment (soil/water) this product is expected to be readily biodegradable. This material is relatively non-toxic to aquatic life.

### SECTION XIII -- DISPOSAL CONSIDERATIONS

##### **WASTE DISPOSAL METHOD:**

Dispose of solids and the contaminated diking material according to local, state and federal regulations.

##### **CONTAINER DISPOSAL:**

Do not re-use containers.

Do not weld on metal containers.

Dispose of containers according to federal, state and local regulations.

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### SECTION XIV -- TRANSPORTATION INFORMATION

<b>D.O.T. HAZARD CLASSIFICATION:</b>	Non-regulated
<b>D.O.T. LABELS REQUIRED: (49CFR172.101):</b>	None
<b>D.O.T. PLACARDS REQUIRED:</b>	None
<b>BILL OF LADING DESCRIPTION:</b>	Liquid Ice Prevention Compound (diethylene based)

### SECTION XV-- REGULATORY INFORMATION

<b>OSHA hazard class (29CFR 1910.1200):</b>	Toxic/Irritant
<b>EPA SARA TITLE III Section 302 (planning notification):</b>	None
<b>EPA SARA TITLE III Section 304 (release notification):</b>	None
<b>EPA SARA TITLE III Section 311/312 (hazard class):</b>	Health – acute, chronic
<b>EPA SARA TITLE III Section 313 (TRI):</b>	None
<b>RCRA Hazardous Substance:</b>	None
<b>TSCA listed or exempt:</b>	Yes
<b>WHMIS Classification (Canada):</b>	D2, Chronic Toxicity Hazard
<b>DSL listed or exempt (Canada):</b>	Yes

### SECTION XVI -- OTHER INFORMATION

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulator requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws.

**ABBREVIATIONS AND SYMBOLS:**

N.D. - Not Determined	N.A. - Not Applicable	N.T. - Not Tested
< - LESS THAN	> - MORE THAN	