



## MATERIAL SAFETY DATA SHEET

LABORATORIES

320 37th Avenue • St. Charles, Illinois 60174 • To Reorder, Call 800-323-2594

<b>PRODUCT IDENTIFICATION</b> UNITED 104	<b>USE / DESCRIPTION</b> Ice & Frost Melter	<b>REVISION DATE</b> August 26, 2002	<b>FOR MEDICAL AND TRANSPORTATION EMERGENCIES:</b> INFOTRAC: 800-535-5053
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**HEALTH (0 = Maximum Safety)** 1  
 Always follow Label Directions and Cautions.  
 4 Extreme. 3 High. 2 Moderate. 1 Slight. 0 Minimal.  
**See Health Hazard Data Section of this M.S.D.S. for more detailed information.**

**REACTIVITY (0 = Maximum Safety)** 1  
 Susceptible to Release of Energy.  
 4 May detonate-vacate area if Materials are exposed to fire.  
 3 Strong shock of heat may detonate-use monitors from behind explosion resistant barriers.  
 2 Violent chemical change possible-use hose stream from distance  
 1 Unstable if heated-use precaution.  
 0 Normally stable.

**FLAMMABILITY (0 = Maximum Safety)** 3  
 Susceptibility of Material to Burning.  
 4 Extremely flammable. 1 Must be preheated to burn.  
 3 Ignites at normal temperature. 0 Will not burn.  
 2 Ignites when moderately heated.

**PERSONAL PROTECTION**



### HAZARDOUS COMPONENTS IDENTITY, EXPOSURE LIMITS AND S.A.R.A. TITLE III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	ACGIH TWA	ACGIH STEL	OSHA PEL TWA	OTHER RECOMMENDED LIMITS	S.A.R.A. TITLE III QUANTITIES
Methanol	67-56-1	Skin: 200 ppm Skin: 262 mg/m <sup>3</sup>	Skin: 250 ppm Skin: 328 mg/m <sup>3</sup>	SKIN: 200 ppm SKIN: 260 mg/m <sup>3</sup>	NIOSH TWA Skin 200 ppm Skin: 260 mg/m <sup>3</sup>	0.591*
Ethylene glycol	107-21-1	Not established	Ceiling: 100 mg/m <sup>3</sup>	Not established	None	0.04*
Isopropyl alcohol	67-63-0	400 ppm 983 mg/m <sup>3</sup>	500 ppm 1230 mg/m <sup>3</sup>	400 ppm 980 mg/m <sup>3</sup>	NIOSH TWA 400 ppm 980 mg/m <sup>3</sup>	None
Carbon dioxide	124-38-9	5000 ppm 9000 mg/m <sup>3</sup>	30000 ppm 54000 mg/m <sup>3</sup>	5000 ppm 9000 mg/m <sup>3</sup>	NIOSH TWA 5000 ppm 9000 mg/m <sup>3</sup>	None
Liquified petroleum gas	68476-85-7	1000 ppm 1800 mg/m <sup>3</sup>	Not established	1000 ppm 1800 mg/m <sup>3</sup>	NIOSH TWA 1000 ppm 1800 mg/m <sup>3</sup>	None
Morpholine	110-91-8	Skin: 20 ppm Skin: 71 mg/m <sup>3</sup>	Not established	Skin: 20 ppm Skin: 70 mg/m <sup>3</sup>	NIOSH TWA Skin: 20 ppm	0.005*

\* Pounds of reportable material per can of UNITED product.

### PHYSICAL / CHEMICAL CHARACTERISTICS

<b>BOILING POINT</b> Not determined	<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1)</b> Less than 1.0
<b>VAPOR PRESSURE (psig)</b> (At 130° F.) 90-110	<b>MELTING POINT</b> Not determined
<b>VAPOR DENSITY (Air = 1)</b> Greater than 1.0	<b>EVAPORATION RATE</b> (Ether = 1) Less than 1.0
<b>SOLUBILITY IN WATER</b> Complete	<b>VOLATILE ORGANIC COMPOUNDS (V.O.C.)</b> (Pounds Per Can Of Product) 0.791
<b>APPEARANCE AND ODOR</b> Clear liquid with alcohol odor	<b>pH:</b> Not applicable

### FIRE AND EXPLOSION HAZARD DATA

<b>FLASH POINT (Method Used)</b> This product is considered to be flammable as described in 16 CFR 1500.45.	<b>FLAMMABLE LIMITS</b> % Volume in air (Methanol)	<b>LEL</b> 7.3	<b>UEL</b> 36.0
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**EXTINGUISHING MEDIA**  
 Carbon dioxide, standard foam, dry chemical

**SPECIAL FIRE FIGHTING PROCEDURES**  
 Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. Use equipment or

shielding, as required, to protect personnel from bursting, rupturing or venting containers. Use cool water spray to prevent weakening of container.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**  
 Exposure to temperatures above 130° F may cause container to burst, rupture, or vent. Heat or fire may cause hazardous fumes of carbon monoxide and carbon dioxide.

## REACTIVITY DATA

STABILITY: STABLE  UNSTABLE  CONDITIONS TO AVOID  
Do not expose to temperatures above 130°F/54°C. Dropping containers may cause bursting.

### INCOMPATIBILITY (Materials To Avoid)

Oxidizing agents

### HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Carbon dioxide, carbon monoxide and additional toxic chemicals may be formed in small amounts.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR   
MAY OCCUR

CONDITIONS TO AVOID  
Avoid sources of heat and/or ignition.

## HEALTH HAZARD DATA

### HEALTH HAZARDS

EYES: May cause irritation SKIN: May cause irritation INHALATION: In a confined area, vapors in high concentrations are anesthetic.

May cause irritation to the upper respiratory system. IF SWALLOWED: Harmful or fatal.

CARCINOGENICITY: NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No

This product contains a chemical known to the state of California to cause cancer or reproductive toxicity? No

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Irritation, redness, watering SKIN: Irritation, itching, dryness, redness INHALATION: Overexposure to vapors may cause light headaches,

staggering gait, giddiness and possible nausea. IF SWALLOWED: Harmful or fatal

### TARGET ORGANS:

Eyes, skin and central nervous system.

### MEDICAL CONDITIONS GENERALLY AGGRAVATED BY OVEREXPOSURE

Pre-existing skin and eye disorders may be aggravated by exposure to this product.

### EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with plenty of water for at least 15 minutes while holding eyelids open. If irritation persists, call a physician or poison center.

SKIN: Remove contaminated clothing. Flush with water followed by soap and water. If irritation persists, call a physician or poison center.

INHALATION: Remove to fresh air immediately and apply CPR if needed. Call a physician or poison center. IF SWALLOWED: Induce vomiting under the

direction of a physician. Never give anything by mouth to an unconscious person. Call a physician or poison center immediately.

## PRECAUTIONS FOR SAFE HANDLING AND USE

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Provide adequate ventilation to area being treated. Remove all sources of ignition. Mop up or soak up spilled material with chemically inert, absorbent material.

Place waste in a tightly sealed container.

### WASTE DISPOSAL METHOD

Do not puncture or incinerate containers. When contents are depleted continue to depress button until all gas is expelled.

Consult local, state and federal authorities for proper disposal guidelines.

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep this product in properly labeled, tightly closed containers in a cool, well-ventilated area, away from heat or other sources of ignition.

Do not expose to direct sunlight or store at temperatures above 130°F/54°C. Store as Level 2 Aerosol (NFPA 30B).

## CONTROL MEASURES

### FOR USE WHERE SIGNIFICANT EYE, SKIN OR INHALATION EXPOSURE IS LIKELY

#### RESPIRATORY PROTECTION (Specify Type)

If TLV is exceeded, use NIOSH / MSHA approved respirator

VENTILATION: MECHANICAL (General)

Provide adequate ventilation

LOCAL EXHAUST

Generally adequate

#### PROTECTIVE GLOVES

Chemical resistant gloves

#### EYE PROTECTION

Chemical safety goggles

#### OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Wear impervious clothing to prevent skin contact.

#### WORK HYGENIC PRACTICES

Remove contaminated clothing immediately and wash with soap and water before reusing. Wash hands and face with soap and water after using this product.