



Terminal Packaging Corporation

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AsK6.

MATERIAL SAFETY DATA SHEET

IDENTITY (As used on label and list): POLAR WINDSHIELD DE-ICER
PRODUCT CODE: POSF0062

NFPA Hazard Identification

	0 - Least
Health:	1 - Slight
Fire:	2 - Moderate
Reactivity:	3 - High
	4 - Extreme

Section I - General Information

Terminal Packaging Corporation Emergency (402) 341-9397
{subsidiary of Warren Distribution} Information (402) 341-9397
2849 River Road Chemtrec (800) 424-9300
Council Bluffs, IA 51501 Revised: 6-1-92

Section II - Hazardous Ingredients

COMPONENT NAME	%	CAS	OSHA PEL	ACGIH TLV	
Carbon Dioxide	1-10	124-38-9	10000ppm	5000ppm	30000ppm STEL
Methyl Alcohol	55-70	67-56-1	200ppm	200ppm	- skin
Ethylene Glycol	5-10	107-21-1	50ppm	50ppm	- ceiling

Section III - Physical/Chemical Characteristics

Boiling Point (deg F): 147 Specific Gravity ($H_2O=1$): .83-.84
Vapor Pressure (mm Hg): 97.7 Melting Point (deg F): n/a
Vapor Density (Air=1): >1 Solubility in Water : ND
Evaporation Rate (n-butyl Acetate=1): slower than ether

APPEARANCE AND ODOR: clear liquid

Section IV - Fire and Explosion Hazard Data

Flash Point (deg F): 69
Method Used: TCC

Flammable or Explosive Limits (approximate % by volume in air)
LEL: 3.2 UEL: ND

EXTINGUISHING MEDIA: alcohol foam or water fog

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at location distant from material handling point.

Section V - Reactivity Data

STABILITY: stable

CONDITIONS TO AVOID: n/a

INCOMPATIBILITY (MATERIALS TO AVOID): strong oxidizing agents

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: May form toxic materials, carbon dioxide and carbon monoxide, etc.

HAZARDOUS POLYMERIZATION: will not occur

CONDITIONS TO AVOID: n/a

Section VI - Health Hazard Data

EYE CONTACT: can cause severe irritation, redness, tearing, blurred vision

SKIN CONTACT: Prolonged or repeated contact can cause moderate irritation, defatting, and/or dermatitis.

INHALATION: Excessive inhalation of vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache, and possible unconsciousness, and even death.

INGESTION: can cause gastrointestinal irritation, nausea, vomiting, diarrhea, blindness, and death

CARCINOGENICITY: n/a

SIGNS AND SYMPTOMS OF OVEREXPOSURE: as above

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: ND

(CQD)

OTHER HEALTH INFORMATION: Laboratory animal tests have revealed the product to cause damage in the kidneys, liver, eyes, spleen, lungs, brain, and nervous system. High dosage of ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice. No information is available to suggest that ethylene glycol has caused birth defects in humans, but it is recommended that every effort should be made to prevent ingestion and exposure exceeding TLV.

Section VII - First Aid Procedures

EYE CONTACT: Flush with large amounts of water, lifting upper and lower lids occasionally. Get medical attention.

SKIN CONTACT: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. Remove contaminated shoes promptly. Discard shoes saturated with this product.

INHALATION: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm and quiet, and get medical attention.

INGESTION: Immediately drink two glasses of water and induce vomiting by placing finger at back of throat. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section VIII - Precautions for Safe Handling and Use

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb small liquid spills on paper, vermiculite, floor absorbant, or other absorbent material, and transfer to hood.

For large spills; Eliminate all ignition sources (flares, electric sparks, and flames, including pilot lights). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbant, or other absorbent material and shoveled into containers. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required (that a spill has occurred).

WASTE DISPOSAL METHOD: For small amounts, allow volatile portion to evaporate in hood, giving ample time for vapors to clear duct work. For large spill, destroy by liquid incineration. For remainder, and in all aspects, disposal must be in accordance with all local, state, and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in this datasheet must be observed.

OTHER PRECAUTIONS: none

Section IX - Control Measures

RESPIRATORY PROTECTION: none under normal conditions of use

VENTILATION: none under normal conditions of use

PROTECTIVE GLOVES: none under normal conditions of use

EYE PROTECTION: none under normal conditions of use

OTHER PROTECTIVE EQUIPMENT: none under normal conditions of use

WORK PRACTICES/ENGINEERING CONTROLS: Keep containers closed when not in use.

PERSONAL HYGIENE: Practice good personal hygiene.

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we received from sources outside our company and we believe that information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.