

QUICK IDENTIFIER
Common Name: (used on label and list)

1 - 1 - 0

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29CFR1910.1200. Standard must be consulted for specific requirements.

SECTION 1 - GENERAL INFORMATION

Name	ZECOL PRODUCTS COMPANY		
Address	4635 WILLOW DRIVE	Emergency Telephone No.	(CHEM-TEL) 1-800-255-3924
City, State, and ZIP	MEDINA, MN 55340	Other Information Calls	(763) 478-3438
Signature of Person Responsible for Preparation (Optional)		Date Prepared	JAN 1, 2002 (REV)

H	HEALTH	1
F	FLAMMABILITY	1
R	REACTIVITY	0
	Style NC-L503R PERSONAL PROTECTION	0

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) [chemical & common name(s)]	OSHA PEL ppm	ACGIH TLV ppm	CAS NO.
Water	NA	NA	7732-18-5
Ethylene Glycol	50ppm	NE	107-21-1
Diethylene Glycol	None	NE	111-46-6
Di Potassium Phosphate	None	NE	7758-11-4

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point	224° - 227° F.	Specific Gravity (H ₂ O=1)	1.07
Vapor Density (Air=1)	2.1	Vapor Pressure (mm Hg)	<0.1 @ 20° C.
Solubility in Water	Completely soluble.	Evaporation Rate (N-Butyl Acetate=1)	Nil
Appearance and Odor	Pale green liquid. Mild odor.		

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point	None	Method Used	NA	Flammable Limits in Air % by Volume	LEL Lower NE	UEL Upper NE
Auto-Ignition Temperature	NA (398°C / 748°F for ethylene glycol)	Extinguisher Media	Water fog, fine spray. Alcohol resistant foams (ATC) preferable. General purpose synthetic foams (includes AFFF) or protein foams may function, but less effective. Carbon dioxide. Dry chemical.			
Special Fire Fighting Procedure	Isolate fire area and keep people away. Do not use direct water stream as it may spread the fire. Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing.					
Unusual Fire and Explosion Hazards	None expected under normal storage and handling conditions. However, ethylene glycol or solutions of ethylene glycol and water can form flammable vapors with air if heated sufficiently.					

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA) POLYGUARD READY-TO-USE 50/50 ANTIFREEZE

Stability Unstable Conditions to Avoid Isolate from oxidizers, heat and open flame.
 Stable

Incompatibility (Materials to Avoid) Strong oxidizers such as permanganates, chromates & peroxides.

Hazardous Decomposition Products Carbon monoxide, carbon dioxide from burning.

Hazardous Polymerization May Occur Conditions to Avoid NA
 Will Not Occur

SECTION 6 - HEALTH HAZARDS

1. Acute Slight eye irritation, moderate toxicity if ingested. 2. Chronic Central nervous system effects; cardiopulmonary effects; severe kidney, liver, and/or gastrointestinal effects; bladder stones;

Signs and Symptoms of Exposure Irritated skin or eyes, nausea, vomiting. possible kidney failure and/or death in burn patients.

Medical Conditions Generally Aggravated by Exposure Keep away from damaged skin.

Chemical Listed as Carcinogen or Potential Carcinogen National Toxicology Program Yes No I.A.R.C. Monographs Yes No OSHA Yes No

Emergency and First Aid Procedures

ROUTES OF ENTRY

- 1. Inhalation Immediately remove victim to fresh air and CALL EMERGENCY MEDICAL CARE. If not breathing, provide artificial respiration. If breathing is difficult, give oxygen.
- 2. Eyes Immediately flush eyes with large amounts of water for 15 minutes, lifting lids to ensure total coverage. Seek medical attention as soon as possible.
- 3. Skin Flush area of skin immediately with large amounts of water for 15 minutes and remove contaminated clothing. If irritation persists, seek medical attention promptly. Wash clothing before re-use.
- 4. Ingestion Seek medical attention immediately. If patient is fully conscious, give them 2 glasses of water. Do not induce vomiting. If a delay in medical attention for a person swallowing more than a few ounces, give them 3 to 4 ounces of hard liquor (such as whisky). Give a child proportionately less amount.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage Product on surfaces can be slippery. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of the reach of children. Product may become a solid at temperatures below -37°C / -34°F. Do not store near food, foodstuffs, drugs or potable water supplies.

Other Precautions

Steps to be Taken in Case Material is Released or Spilled Small Spill: Soak up with absorbent material. Large spill: Dike and pump into suitable containers for disposal. Ensure compliance with all applicable federal, state, and local regulations.

Waste Disposal Methods (Consult federal, state, and local regulations) Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state, or local regulatory agencies to ascertain proper disposal procedures.

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type) If high levels of airborne concentration, wear self-contained breathing apparatus or supplied-air respirator with full facepiece operated in a pressure-demand or other positive pressure mode.

Ventilation Use general or local exhaust ventilation to meet TLV requirements.

Protective Gloves Recommended when prolonged skin contact cannot be avoided. Use polyethylene, neoprene, nitrile, polyvinyl alcohol, natural rubber, or butyl rubber.

Other Protective Clothing or Equipment Safety goggles and face shield. Emergency eye wash and safety shower should be available.

Work/Hygienic Practices Contact lenses should not be worn when working with this chemical.