

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Propylene Glycol Industrial  
PRODUCT CODE:

DATE: 07/01/02

CAS # 57-55-6

FORMULA:

CHEMICAL NAME/FAMILY: Glycols

CHEMICAL SYNONYMS: 1,2-Propanediol, 1,2-Dihydroxypropane  
Monopropylene Glycol

SUPPLIERS NAME: Nizhnekamskneftekhim USA  
92 Front Street  
Hempstead, NY 11550

SUPPLIERS PHONE NUMBER: 516 542 0500

TRANSPORTATION EMERGENCY PHONE NUMBER: 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS: Fire: Pressure: Reactivity: Acute: Chronic:  
PHYSICAL DATA: Mixture: Pure: Solid: Liquid: X Gas:

SECTION I Hazardous Ingredients

Ingredient	Percent	TLV
Propylene Glycol	99%	

SECTION II Health Hazards

Threshold Limit Value:

Potential Effects of Exposure (listed by primary routes of entry)

Eyes: May cause minor irritation.

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SECTION III Special Protection Information  
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Respiratory Protection: No special respiratory protection is recommended under normal conditions of anticipated use with adequate ventilation.

Ventilation Required: No special ventilation is usually required to meet exposure standard(s) beyond that needed for normal comfort control.

Protective Clothing:

Eyes: Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.

Skin: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, and when leaving work.

Additional protective Measures: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

SECTION IV Fire & Explosion Hazard Data  
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Flash Point (Method): 211øF (TCC)

Flammable Limits (% Volume in Air):

Upper: 17.4%

Lower: 2.4%

Extinguishing Media: Alcohol type foam, CO2, Dry chemical.

Special Fire Fighting Procedures: Do not enter fire area without proper protection. Fight fire from a safe distance/protected location. Heat may build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although soluble, may not be practical to extinguish fire by water dilution. Notify authorities if liquid enters sewer/public waters.

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SECTION IV Fire & Explosion Hazard Data

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Unusual Fire and Explosion Hazards: Heat from fire can generate flammable vapor. When mixed with air and exposed to an ignition source, vapors may burn in open or can explode if confined. Vapors may travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mist may be combustible at temperatures below normal flash point. Aqueous solutions of propylene glycol greater than 22% by weight, if heated sufficiently, will produce flammable vapors. Only aqueous solutions of propylene glycol less than 22% should be used in sprinkler systems or other fire-fighting equipment. Always drain and flush systems containing propylene glycol with water before welding or other maintenance.

SECTION V Physical Data

Boiling Point: 365°F @ 760 mm hg

Specific Gravity (H<sub>2</sub>O=1): 1.04 @ 39.2°F

Vapor Pressure (MM HG.): .08 mm hg @ 68°F

Vapor Density (AIR=1):

Evaporation Rate (Butyl Acetate=1):

Solubility in Water: Complete (in all proportions)

Percent Volatile by Volume: Slight

PH: N/A

Freezing Point: -76°F

Appearance and Odor: Clear, colorless, little or no odor, slightly viscous liquid. Hygroscopic.

SECTION VI Reactivity Data

Stability: Stable

Incompatibility: Reacts with strong oxidizing agents; High temperatures, oxidizing conditions.

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SECTION VI Reactivity Data

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Hazardous Decomposition Products: Incomplete combustion may produce carbon monoxide and other toxic gases.

Hazardous Polymerization: Not expected to occur.

SECTION VII Spill and Leak Procedures

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Steps to be taken if material is released or spilled: May contaminate water supplies/pollute public waters. Evacuate/limit access. Equip responders with proper protection. Prevent flow to sewers/public waters. Stop release. Notify fire and environmental authorities. Restrict water use for clean up. Slippery walking; spread granular cover. Impound/recover large land spill. Soak up small spill with inert solids. Use suitable disposal containers. On water, material soluble/may float or sink. May biodegrade. Contain/minimize dispersion/collect. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

Waste Disposal Method: Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids, diluting with clean, low viscosity fuel. Avoid flameouts. Assure emissions comply with applicable regulations. Dilute/aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations. Contaminated product, soil or water should not be designated RCRA hazardous waste.

SECTION VIII D.O.T. Shipping Information

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Proper Shipping Name: PROPYLENE GLYCOL

Hazard Class: NOT REGULATED

ID Number: N/A

Label Requirements: N/A

Reportable Quantity: N/A

Other Information:

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SECTION IX Additional Information  
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This information may be of importance to you:

FURTHER PRECAUTIONARY MEASURES:

HANDLING AND STORAGE PROCEDURES : Hygroscopic; use dry nitrogen or low dew point air for tank padding. Keep drums tightly closed to prevent contamination. Store at 18-33°C (85-90°F).

DECONTAMINATION PROCEDURES : Clean equipment with water.

Animal Toxicology:

Acute Toxicity: Inhalation LC 50: No data  
Dermal LD 50: > 2 g/kg (rabbit)  
Oral LD 50: > 5 g/kg (rat)  
Irritation: May cause mild skin and eye irritation from prolonged acute exposure.

Acute Target Organ Toxicity: No organs known to be damaged from exposure to this product. May cause mild eye and skin irritation from prolonged acute exposure.

Chronic Target Organ Toxicity: There are no known or reported effects from repeated exposure.

Reproductive and Developmental Toxicity: there are no known or reported effects on reproductive function or fetal development from exposure to this product.

Continuous breeding reproduction studies were conducted using mice and rats. The animals were fed propylene glycol in their feed or water. No adverse effects on reproduction were found in either species. Propylene glycol has been tested and was found to be non-teratogenic in mice, and it does not affect maternal or embryotoxicity in mice, rats, hamsters, or rabbits.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

Propylene glycol has been tested for carcinogenicity in rats and mice. It was found to be non-carcinogenic in both a feeding study using rats and in a skin application study using mice.

