

**MATERIAL SAFETY DATA SHEET**  
PENNZOIL® 50/50 PREDILUTED ANTIFREEZE & COOLANT

**1. PRODUCT AND COMPANY IDENTIFICATION**

MSDS Number: 24658

Version Date: 08/01/01

**Product Name:** PENNZOIL® 50/50 PREDILUTED ANTIFREEZE & COOLANT

**Product Use:** Coolant

**Synonyms:** No information available

**Company Information**

SOPUS Products

P.O. Box 4427

Houston, TX 77210-4427

USA

**Phone Numbers**

**Medical Emergency:** 1-800-546-6040

**Transportation Emergency (USA):** 1-800-424-9300

**Transportation Emergency (International):**

1-703-527-3887 (Call Collect)

**MSDS Assistance:** 1-800-546-6227

**Fax On Demand:** 1-800-546-6227

**Technical Assistance:** 1-800-458-4998

**Customer Service:** 1-800-468-8397

**Fax Number:** 713-217-3181

**Internet Address:** www.MSDS.PZLQS.com

**2. COMPONENT INFORMATION**

Component	CAS No.	Weight Percent Range	Hazardous in Blend
WATER	7732-18-5	49 - 50	No
ETHYLENE GLYCOL	107-21-1	45 - 48	Yes
DIETHYLENE GLYCOL	111-46-6	< 2	No
INHIBITORS	TRADESECRET	1	No

This product meets the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Hazards:**

Flammable/Combustible — Acute Toxin X Chronic Toxin X Carcinogen —  
Pressure — Reactive — Exposure Limit X Target Organ X Other —

**Other:** No information available

**3. HAZARDS IDENTIFICATION**

**Emergency and Hazards Overview**

WARNING: HARMFUL OR FATAL IF SWALLOWED.

If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician.

NFPA Ratings: Health 2 Flammability 1 Reactivity 0

Primary Route of Exposure: Skin X Inhalation — Eye —

**Health Effect Information**

**Eye Contact:** Avoid eye contact. This product may be slightly irritating to the eyes upon direct contact.

This product has a low vapor pressure and is not expected to present a hazard to the eyes at ambient conditions. Exposure to mists and vapors may be irritating to the eyes.

**Skin Contact:** Avoid skin contact. Prolonged or repeated contact may result in slight skin irritation.

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**Inhalation:** Avoid prolonged inhalation of mist or vapors. This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. This product may be considered a low health hazard unless inhaled in very high concentrations. Acute and chronic overexposures may be irritating to the respiratory tract. Symptoms of overexposure include respiratory tract irritation, headache, drowsiness and narcosis. See Section 11 - Toxicological Information.

**Ingestion:** Do not ingest. Harmful or fatal if swallowed. Signs and symptoms include behavioral disorders, drowsiness, vomiting, diarrhea, visual disturbances, thirst, convulsions, cyanosis, and rapid heart rate. Signs and symptoms are central nervous system stimulation followed by depression, cardiopulmonary effects, and later potentially fatal kidney damage. See Section 11 - Toxicological Information.

**Medical Conditions Aggravated by Exposure:** No information available

**Other:** A hazard due to inhalation may exist in circumstances where ethylene glycol is handled hot or where agitation or other mechanical operations may create an excessive fog or heavy mist. Ethylene glycol is not readily absorbed through skin in acutely toxic amounts. However, animal studies and human case reports suggest that absorption through the skin repeatedly over a prolonged period of time can present a health hazard.

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**4. FIRST AID INFORMATION**

**Eye Contact:** Immediately flush eyes with large amounts of water and continue flushing for 15 minutes or until irritation subsides. If irritation persists, seek medical attention.

**Skin Contact:** Wash contaminated area thoroughly with soap and water.

**Inhalation:** This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If vapor or mist is generated when the material is heated or handled, remove victim from exposure. If discomfort persists seek medical attention.

**Ingestion:** If person is conscious, give large quantities of water immediately. Induce vomiting. Seek immediate medical attention. Do not attempt to give anything by mouth to an unconscious person.

**Notes to Physician:** Immediate medical treatment is imperative, especially if a large dose has been ingested. Administer alkali to correct acidosis. Hemodialysis is effective in the management of poisoning. Intravenous administration of ethanol has been effective.

**Other:** No information available

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**5. FIRE AND EXPLOSION INFORMATION****Flammable Properties**

**Flash Point:** Not applicable

**Flash Point:** Not applicable

**Flammable Limits in Air**

**Upper Percent:** No data available

**Lower Percent:** No data available

**Autoignition Temperature:** No data available

**Test Method:** No information available

**Test Method:**

**Test Method:** No information available

**NFPA Classification:** Water-based product - not applicable

**Extinguishing Media:** Use dry chemical, alcohol foam, or carbon dioxide.

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**Special Fire Fighting Procedures and Equipment:** Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure buildup and possible container rupture. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

**Unusual Fire and Explosion Conditions:** Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

**Hazardous Combustion By-Products:** No information available

**Other:** No information available

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**6. ACCIDENTAL RELEASE MEASURES**

**Personnel Safeguards:** Consult Health Effect Information in Section 3, Personal Protection Information in Section 8, Fire and Explosion Information in Section 5, and Stability and Reactivity Information in Section 10.

**Regulatory Notifications:** Notify appropriate authorities of spill.

**Containment and Clean up:** Contain spill immediately. Do not allow spill to enter sewers or watercourses. Absorb with appropriate inert material such as sand, clay, etc. Large spills may be picked up using vacuum pumps, shovels, buckets, or other means and placed in drums or other suitable containers.

**Other:** No information available

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**7. HANDLING AND STORAGE INFORMATION**

**Handling:** No special handling procedures are necessary.

**Storage:** Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing materials.

**Empty Container Warnings**

**Drums:** Empty containers retain product residue and can be dangerous.

**Plastic:** Do not reuse this container. Empty container may retain product residues.

**Other:** No information available

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION****Exposure Limits and Guidelines**

Component	CAS No.	Exposure Limit
ETHYLENE GLYCOL	107-21-1	ACGIH - TLV: Ceiling 50 ppm

**Personal Protective Equipment**

**Eye/Face Protection:** Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

**Skin Protection:** Skin protection is not required under conditions of normal use. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. Impervious clothing should not consist of polyvinyl alcohol. Launder soiled clothes.

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**Respiratory Protection:** Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified.

**Personal Hygiene:** Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking, or smoking.

**Engineering Controls / Work Practices**

**Ventilation:** General room ventilation is normally sufficient to prevent buildup of hazardous concentrations. If vapor or mist is generated when the material is heated or handled, adequate ventilation must be provided.

**Other:** No information available

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b> Fuchsia	
<b>Odor:</b> Mild	<b>Vapor Pressure:</b> < 0.1
<b>Physical state:</b> Liquid	<b>Vapor Density (air=1):</b> 2.1
<b>pH:</b> 7.5 - 11	<b>Percent Volatile by Volume:</b> 97
<b>Boiling Point:</b> 224.1 - 226.9 F, 106.7 - 108.3 C	<b>Volatile Organic Content:</b> No data available
<b>Melting Point:</b> No data available	<b>Molecular Weight:</b> 62
<b>Specific Gravity:</b> 1.07	<b>Average Carbon Number:</b> No data available
<b>Pour Point:</b> -34 F, -36.7 C	<b>Viscosity @ 100 F:</b> 10 SUS
	<b>Viscosity @ 40 C:</b> No data available
<b>Solubility in Water:</b> Completely soluble in water	
<b>Octanol / Water Coefficient: Log K<sub>ow</sub> =</b> No data available	

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**10. STABILITY AND REACTIVITY INFORMATION**

**Chemical Stability:** Stable

**Conditions to Avoid:** None

**Incompatible Materials to Avoid:** May react with strong oxidizing agents.

**Other:** No information available

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**11. TOXICOLOGICAL INFORMATION**

**Primary Eye Irritation:** 15-25/110 (Draize-rabbit); slightly irritating for ethylene glycol.

**Primary Skin Irritation:** 0.5-3.0/8.0 (Draize-rabbit); slightly irritating for ethylene glycol.

**Acute Dermal Toxicity:** No information available

**Subacute Dermal Toxicity:** No information available

**Dermal Sensitization:** No information available

**Inhalation Toxicity:** If warning discomfort from excessive concentrations are heeded, no health problems are expected. May lead to kidney, liver, blood and CNS disorders.

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**Inhalation Sensitization:** No information available

**Oral Toxicity:** Ingestion of small quantities (100 ml) of ethylene glycol may be fatal.

**Mutagenicity:** The absence of carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.

**Carcinogenicity:** Based on data from long-term animal studies, ethylene glycol does not pose a carcinogenic risk to humans.

**Reproductive and Developmental Toxicity:** Ethylene glycol has been shown to produce reproductive and developmental effects in experimental animals. The no-effect doses for developmental toxicity for ethylene glycol given by gavage over the period of organogenesis has been shown to be 150 mg/kg/day for the mouse and 500 mg/kg/day for the rat. The relevance of these reproductive and developmental animal studies to human exposures to ethylene glycol is currently unknown.

**Teratogenicity:** Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses.

**Immunotoxicity:** No information available

**Neurotoxicity:** No information available

**Other:** No information available

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**12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity:** This product is practically non-toxic to aquatic organisms on an acute basis - LC50 > 100 mg/L.

**Terrestrial Toxicity:** No information available

**Chemical Fate and Transport:** Bioconcentration potential is low (Log Kow < 3).

**Other:** No information available

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**13. DISPOSAL INFORMATION**

**Regulatory Information:** All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled.

**Waste Disposal Methods:** Waste material may be landfilled or incinerated at an approved facility. Materials should be recycled if possible.

**Other:** No information available

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**14. TRANSPORTATION INFORMATION**

**U.S. Department of Transportation (DOT)**

**Highway / Rail (Bulk):** Not Regulated

**Highway / Rail (Non-Bulk):** Not Regulated



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For US shipments, US DOT law requires the shipper to determine the proper shipping description of the material that is being shipped. The shipping information and description contained in this section may not be suitable for all shipments of this material, but may help the shipper determine the proper shipping description for a particular shipment.

**International Information**

Vessel: IMDG Regulated: — IMDG Not Regulated: X  
Air: ICAO Regulated: — ICAO Not Regulated: X

Other: No information available

**15. Regulatory Information**

**Regulatory Lists Searched:** The components listed in Section 2 of this MSDS were compared to substances that appear on the following regulatory lists. Each list is numerically identified. See Regulatory Search Results below.

**Health & Safety:** 10 - IARC carcinogen, 11 - NTP carcinogen, 12 - OSHA carcinogen, 15 - ACGIH TLV, 16 - OSHA PEL, 17 - NIOSH exposure limit, 20 - US DOT Appendix A, Hazardous substances, 22 - FDA 21 CFR Total food additives, 23 - NFPA 49 or 325

**Environmental:** 30 - CAA 1990 Hazardous air pollutants, 31 - CAA Ozone depleters, 33 - CAA HON rule, 34 - CAA Toxic substance for accidental release prevention, 35 - CAA Volatile organic compounds (VOC's) in SOCM1, 41 - CERCLA / SARA Section 302 extremely hazardous substances, 42 - CERCLA / SARA Section 313 emissions reporting, 43 - CWA Hazardous substances, 44 - CWA Priority pollutants, 45 - CWA Toxic pollutants, 46 - EPA Proposed test rule for hazardous air pollutants, 47 - RCRA Basis for listing - Appendix VII, 48 - RCRA waste, 49 - SDWA - (S)MCLs

**International:** 50 - Canada - WHMIS Classification of substance, 54 - Mexico - Drinking water - ecological criteria, 55 - Mexico - Wastewater discharges, 56 - US -TSCA Section (12)(b) - export notification

**State Lists:** 60 - CA - Proposition 65, 61 - FL - Substances, 62 - MI - Critical materials, 63 - MA - RTK, 64 - MA - Extraordinarily hazardous substances, 65 - MN - Hazardous substances, 66 - PA - RTK, 67 - NJ - RTK, 68 - NJ - Environmental hazardous substances, 69 - NJ - Special hazardous substances

**Inventories:** 80 - Canada - Domestic substances, 81 - European - EINECS, 82 - Japan - ENCS, 83 - Korea - Existing and evaluated chemical substances, 84 - US - TSCA, 85 - China Inventory

**Regulatory Search Results:**

DIETHYLENE GLYCOL: 23, 33, 35, 50, 65, 66, 69, 80, 81, 82, 83, 84, 85

ETHYLENE GLYCOL: 15, 20, 23, 30, 33, 35, 42, 46, 50, 61, 63, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85

WATER: 80, 81, 83, 84, 85

**U.S. TSCA Inventory:** All components of this material are not on the US TSCA Inventory.

**SARA Section 313:**

<u>Chemical</u>	<u>CAS Number</u>	<u>Percent in Product</u>
ETHYLENE GLYCOL	107-21-1	< 48

**IARC:** No information available

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**PENNZOIL® 50/50 PREDILUTED ANTIFREEZE & COOLANT****SARA 311 / 312 Categories**

Acute: X Chronic: X Fire: -- Pressure: -- Reactive: --  
Not Regulated: --

**Canadian WHMIS Classification**

Class D - Poisonous and infectious material, Division 2A, Very Toxic Material

**European Union Classification****Hazard Symbols:**

Harmful / Xn / X in square.

**Risk Phrases:**

R22: Harmful if swallowed.

**Safety Phrases:**

S1/2: Keep locked up and out of the reach of children

**Other:** No information available

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**16. OTHER INFORMATION****Health and Environmental Label Language**

Front Label:

WARNING: HARMFUL OR FATAL IF SWALLOWED.

Read carefully other cautions on back.

Back Label:

WARNING: Contains ethylene glycol. Can cause central nervous system, cardiopulmonary and kidney disorders.

PRECAUTIONARY MEASURES: Do not drink antifreeze or solution. Do not store in open or unlabeled containers.

FIRST AID: If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. Ethylene glycol base.

NOTE TO PHYSICIAN: Immediate treatment is extremely important.

DISPOSAL OF USED ANTIFREEZE/COOLANT:

Observe local laws and regulations. Recycling used antifreeze recommended instead of disposal. Dispose in local sewage treatment systems only where permitted. Do not drain on the ground or into storm water drainage systems.

KEEP OUT OF REACH OF CHILDREN AND PETS.

**MSDS Revisions**

Previous Version Date: 03/30/01

**Previous Version Information**

All sections revised, new 16 section MSDS format.

**Other**

No information available

**Prepared By:**

SOPUS Products

P.O. Box 4427

Houston, TX 77210-4427 USA

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**Disclaimer of Warranty:** The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, SOPUS Products must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information, the results to be obtained from the use thereof, or that any such use do not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.