

Eco Lube Recovery
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 Bellevue, WA 98005
 425-429-3616
 833-ECO-LUBE
 www.ecolube.com

SAFETY DATA SHEET



Eco Cool

Pre-diluted, Fully-Formulated, Heavy- Duty/Light Duty, Conventional, Pre-charged Coolant (50/50)

SECTION 1 – IDENTIFICATION OF SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier	Product form: Mixture Product name: Eco Cool Conventional Antifreeze/Coolant
1.2 Relevant identified uses of the substance or mixture and uses advised against	Use of the substance/ mixture: Automotive Engine Antifreeze and Coolants
1.3 Details of the supplier of the safety data sheet	Eco Lube Recovery 40 Lake Bellevue Drive, Suite 100 Bellevue, WA 98005 425-429-3616 833-ECO-LUBE www.ecolube.com
1.4 Emergency Telephone Number	425-429-3616

SECTION 2 – HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE		
GHS-US Classification	Acute Tox. 4 (oral) STOT RE 2	H302 H373
2.2 Hazard pictograms (GHS-US)	GHS07	
	GHS08	
Signal word (GHS-US)	Warning	
Hazard Statements:	H302-Harmful if swallowed H373 May cause damage to organs (kidneys) through prolonged repeated exposure (oral)	

Precautionary statements	<p>P201 Obtain special instructions before use</p> <p>P202 Do not handle until all safety precautions have been read and understood</p> <p>P260 do not breath mist, spray or vapors</p> <p>P264 Wash affected areas thoroughly after handling</p> <p>P270 Do not eat drink or smoke when using this product</p> <p>P280 wear personal proactive equipment as required</p> <p>P301+P310 If swallowed: Immediately call doctor/physician or poison center</p> <p>P3010+P330-P331 if swallowed: rise mouth. Do not induce vomiting</p> <p>P304+P340 If inhaled: remove person to fresh air and keep comfortable for breathing</p> <p>P501 Dispose of contents/container, in a safe manner, to appropriate waste disposal facility in accordance with local/regional/national/international regulations</p>
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SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance	Nat applicable		
3.2 Mixture			
Name	Product identifier	% by wt	GHS-US classification
Ethylene glycol	(CAS No) 107-21-1	< = 50	Acute tox. 4 (oral), H302
Water	CAS No) 7732-18-5	< 50	Not classified
Diethylene Glycol	(CAS No) 1141-46-6	< 3	Acute Tox 4 (oral), H302 STOT RE 2, H373
Undisclosed inhibitors		< 1.7	

SECTION 4 – FIRST AID MEASURES

4.1 Emergency and First Aid Procedures:	<p>Eye contact: Immediately flush with large quantities of water for at least 15 minutes and</p> <p>Skin contact: Remove excess with cloth or paper towel. Wash thoroughly with soap and water. If irritation persists, get medical attention.</p> <p>Ingestion: Immediately contact a physician, poison control center or emergency treatment center. DO NOT induce vomiting. Aspiration Hazard: Product may be inhaled into lungs if vomited.</p> <p>Inhalation: Remove to fresh air. Restore and/or support breathing as required. Keep victim warm and at rest.</p>
4.2 Most important symptoms and effects, both acute and delayed	<p>Symptoms/ injuries: Causes damage to organs (Kidneys) (Oral)</p> <p>Symptoms/injuries after skin contact: Causes skin irritation</p> <p>Symptoms/injuries after eye contact: Causes eye damage</p> <p>Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz)</p>
4.3 Indication of any immediate medical attention and special treatment needed	<p>A More effective intravenous antidote for physician uses is 4-methylpyrazaole, a potent inhibitor of alcohol dehydrogenase, which effetely blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of the ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.</p>

SECTION 5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing media	
Suitable extinguishing media	Water fog. Fine water spray. Alcohol- resistant foam. Foam. Carbon dioxide. Dry chemical powder. Sand. Dry Powder
Unsuitable extinguishing media	Do not use a heavy water stream. May spread fire.

5.2 Special hazards arising from the substance or mixture

Fire Hazard

During a fire, smoke may contain the original material in addition to the combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to carbon monoxide and carbon dioxide

Reactivity

No dangerous reactions known under normal conditions of uses

5.3 Advice for firefighters

Firefighter instructions

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from the environment

Protection during firefighting

Do not enter fire area without proper protective equipment, including respiratory protection

Special protective equipment for fire fighters

Wear positive pressure self-contained breathing apparatus (SCBA).
Protective fire-fighting clothing (Included fire-fighting helmet, coat, boots and gloves).

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate unnecessary personnel
Equip cleanup crew with proper protection

6.2 Environmental precaution

Prevent entry to sewer and public waters. Notify authorities if liquids enter sewer or public water

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap with water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2 Conditions for safe storage

Keep only in the original container in a cool, well ventilated place from heat sources. Keep container closed when not in use. Product may become solid at temperatures below -34 deg F. Do not store near food, potable water supplies. Do not cut, drill, weld, use a blow torch on even when container is empty.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Ethylene glycol (107-21-1)

USA ACGIH Ceiling (mg/m3) 100.00 mg/m3
USA ACGIH Remark (ACGIH) Upper Respiratory Tract (URT) & Eye irritant

8.2 Exposure controls

Personal Protective Equipment (PPE)

Avoid all unnecessary exposure. Gloves and Safety Glasses
Hand Protection: Wear protective gloves
Eye Protection: Chemical goggles and Safety glasses
Respiratory Protection: If exposed to levels above exposure limits wear appropriate respiratory protection



Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State / Color / Odor	Liquid / Green / Mild
pH	10.2-10.8
Freezing / Boiling / Flash point / Auto-ignition temperature	-37°C (-34°F) / 107°C (224°F) / 116°C (241°F)100%EG / 400°C (752°F)100%EG
Specific Gravity / Density	1.04 / 1.04kg/l (8.7 lbs/gal)

9.2 Other Content VOC content 0.00%

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity	No dangerous reactions known under normal conditions of use
10.2 Chemical Stability	Stable
10.3 Possibility of hazardous reactions	Hazardous polymerization will not occur
10.4 Conditions to avoid	Keep away from any flames or sparking source. Extremely high or low temperatures
10.5 Incompatible materials	Keep away from strong acids, strong bases and oxidizing agents
10.6 Hazardous decomposition products	Carbon dioxide, carbon monoxide, fume, alcohols, aldehydes, ethers

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Ethylene Glycol (107-21-1)	
LD50 oral rat	>5,000 mg/kg (Rat)
ATE US (oral)	500 mg/kg bodyweight
Diethylene glycol (111-46-6)	
LD50 oral rat	12,565 mg/kg (Rat)
ATE US (oral)	11,890 mg/kg bodyweight
Eye Effects:	Believed to cause slight eye irritation.
Skin Effects:	Can be irritating to skin upon prolonged contact
Acute Inhalation Effects:	Drowsiness, narcosis, and unconsciousness possible upon exposure to high concentrations in poorly ventilated confined spaces.
Acute Oral Effects:	Can cause irritation to mouth, throat and stomach
Chronic Effects:	Liver and kidney damage in a 2 year rat feeding study using 1-2% Ethylene Glycol. Oral administration of very high doses of Ethylene Glycol produced birth defects in laboratory animals.
Carcinogenicity:	Neither product nor its ingredients are listed by IARC, NTD or OSHA
Mutagenicity:	Not mutagenic
Teratogenicity:	Not Teratogenic

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Ethylene glycol (107-21-1)

LC50 fish 1	53,000 mg/l
EC50 Daphnia 1	>10,000 mg/l
LC50 fish 2	40,761 mg/l
Threshold limit algae 1	>10,000mg/l
Threshold limit algae 2	2,000 mg/l

Diethylene glycol (111-46-6)

LC50 fish 1	>5,000 mg/l
EC50 Daphnia 1	>10,000 mg/l
LC50 fish 2	61,072 ppm
Threshold limit algae 1	2,700 mg/l
Threshold limit algae 2	100 mg/l
12.2 Persistence and Degradability	
Ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established
Biochemical Oxygen Demand (BOD)	0.47 g O ₂ /g Substance
Chemical Oxygen Demand (COD)	1.24 g O ₂ /g Substance
ThOD	1.29 g O ₂ /g Substance
BOD (%of ThOD)	0.36 % ThOD
Diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air
Biochemical Oxygen Demand (BOD)	0.02 g O ₂ /g Substance
Chemical Oxygen Demand (COD)	1.51 g O ₂ /g Substance
ThOD	1.51 g O ₂ /g Substance
BOD (%of ThOD)	0.015 % ThOD
12.3 Bioaccumulative Potential	
Ethylene glycol (107-21-1)	
BCF fish 1	10
BCF other aquatic organisms 1	0.12-.6
BCF other aquatic organisms 2	190
Log Pow	-1.34
Bioaccumulative Potential	Low potential for bioaccumulation (BCF < 500). Not established
Diethylene glycol (111-46-6)	
Log Pow	-1.98
Bioaccumulative Potential	Bioaccumulation: not applicable
12.4 Mobility in soil	
Ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20°C 68°F)
Diethylene glycol (111-46-6)	
Surface tension	.0485 N/m

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment methods

Waste Disposal Method:	Dispose of waste in accordance with Federal, State and Local laws.
Disposal Regulatory Requirements:	Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses transformations, mixture, processes, etc., may render the resulting material hazardous (see waste classification)
Container Cleaning and Disposal:	Containers should be cleaned of residual product before disposal, and disposed of in accordance with all applicable laws and regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name:	None required if container(s) hold less than 5,000 lb (~535 gal)
DOT Hazards classes	9 – Class 9 – Miscellaneous dangerous material 49 CFR 173-140

Transport document description	UN3082 Environmentally hazardous substance, liquid, n.o.s., 9, III
UN-No. (DOT)	3082
DOT NA No.	UN3082
Hazard labels (DOT)	9 – Class 9 (Miscellaneous Dangerous materials)

Bulk Shipments	
DOT Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)
UN Number:	UN 3082
Label Requirement:	Class 9, UN 3082
DOT Packaging Exceptions (49 CFR 173.xxx)	155
DOT Packaging non Bulk (49 CFR 173.xxx)	203
DOT Packaging Bulk (49 CFR 173.xxx)	241

SECTION 15 – REGULATORY INFORMATION

15.1 US Federal regulations

EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed
Ethylene glycol (107-21-1)	Listed on the United State TSCA (Toxic Substance Control Act) Inventory Listed on The Unites States SARA Section 313 RQ (Reportable quantity, section 304 of EPA's List of Lists) 5,000 lb(s) SARA Section 311/312 Hazard Classes: Immediate (acute) health hazard Delayed (chronic) health hazard Ethylene glycol is subject to Tier 1 / or Tier II annual inventory reporting SARA Section 313 – Emission Reporting Ethylene glycol is subject to Form R Reporting requirements
Diethylene Glycol (111-46-6)	Listed on the United State TSCA (Toxic Substance Control Act) Inventory

15.2 International regulations

CANADA	
WHMIS Classification	Class D Division 2 Subdivision A – Very toxic material causing other toxic effects

15.2.2 National Regulations

15.3 US State Regulations

SECTION 16 – OTHER INFORMATION

Additional Hazard Rating Systems: None
Disclaimer: THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.

The conditions or methods of handling, storage, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not apply.

CONSULT COMPANY LISTED IN SECTION 1 FOR FURTHER INFORMATION.