

Lorco Petroleum Services

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Version No. 1

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SAFETY DATA SHEET

Universal / All-Blend

Precharged, Fully-formulated Extended Life
Global Coolant (Prediluted, 50/50)

SECTION 1 - Identification of the Substance / Mixture

Product/Chemical Name: Universal / All-Blend
Product Description: Ethylene Glycol Based Antifreeze, Precharged, Fully-formulated
Extended Life Coolant (50/50) with Dye
Chemical Family: Inhibited Ethylene Glycol and Water Solution
CAS Registry: Mixture
Manufacturer: Lorco Petroleum Services, 450 South Front Street, Elizabeth, New Jersey 07202
Tel. (800) 734-0910, Fax: (908) 820-8412, Operation Mon.-Fri. 0600-1800 EST

Emergency Number (908) 820-8800

SECTION 2 - Hazard(s) Identification

| | | |
|---------------|------|-------|
| Health: | 2 | HMIS |
| Flammability: | 0 | H # 2 |
| Reactivity: | 0 | F # 0 |
| Special: | None | R # 0 |

0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe

PPE *

* Sec 8

Route(s) of Entry

Inhalation: Yes
Skin: Yes
Ingestion: Yes
Eyes: Yes
Target Organs: Kidneys and Liver

Effects of overexposure:

Acute: Eyes: May cause minimal irritation, experienced as temporary discomfort.

Skin: Brief contact is not irritating. Prolonged contact as with clothing wetted with material may cause defatting of skin or irritation, seen as local redness with possible mild discomfort. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact.

Effects of overexposure:

(con't)

Inhalation: Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas, or confined spaces, may cause irritation of the nose and throat, headache, nausea and drowsiness. Prolonged or repeated over-exposure may result in the absorption of potentially harmful amounts of material.

Ingestion: Contains ethylene glycol and or diethylene glycol, which are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Symptoms include headache, weakness, confusion, dizziness, staggering, slurred speech, loss of concentration, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing pulmonary edema, unconsciousness, convulsions, collapse and coma. Symptoms may be delayed. Decreased urine output and kidney failure may also occur. Severe poisoning may cause death. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

Sensitization Properties:

Unknown

Signs and Symptoms

of Exposure:

See above "Effects of Overexposure"

**Medical Conditions Generally
Aggravated by Long-Term**

Exposure:

Repeated overexposure may aggravate existing kidney disease

Chronic Effects:

Repeated ingestion may cause kidney damage.

Carcinogenicity

NTP:

Not listed

IARC Monographs::

Not listed

OSHA Regulations:

Not listed

ACGIH:

Not listed

SECTION 3 - Composition / Information on Ingredients

| <u>Ingredient</u> | <u>CAS No.</u> | <u>WT. Range%</u> | <u>Exposure Limit</u> |
|--------------------------------------|----------------|-------------------|-----------------------|
| * 1,2-ethanediol (Ethylene Glycol) | 107-21-1 | 46 - 48% | 50 ppm Ceiling-ACGIH |
| Other glycols | Not applicable | 0 - 3% | None established |
| Proprietary Additives and Inhibitors | Not applicable | < 3% | Not applicable |
| Dye | Not applicable | < 1% | Not applicable |
| Water | 7732-18-5 | Balance | Not applicable |

* Hazardous according to OSHA (1910.120) or one or more Right-to-Know Lists

SECTION 4 - First Aid Measures

Emergency and

| | | |
|---------------------------------------|----------------------|---|
| First Aid Procedures: | Eye Contact: | Immediately flush with large quantities of water for at least 15 minutes and get medical attention if irritation persists. |
| | Skin Contact: | Remove excess with cloth or paper towel. Wash thoroughly with soap and water. If irritation persists, get medical attention. |
| | 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 |
| | Inhalation | Remove to fresh air. Restore and/or support breathing as required. Keep victim warm and at rest. |
| Note to Physicians: | | Treat symptomatically |
| Special Precautions/Procedures | | None known |

SECTION 5 - Fire Fighting Measures

| | |
|--|--|
| Unusual Fire Fighting procedures | None known |
| Flash Point: | None |
| Flash Point Method: | Not applicable |
| Burning Rate: | Not applicable |
| Autoignition Temperature: | Not determined |
| Flammable limits in air (% by volume) | |
| LEL: | Not determined |
| UEL: | Not determined |
| Flammability Classification: | Does not burn, but emit fumes in a fire |
| Extinguishing Media: | For large fires use alcohol-type all purpose foam. For small fires use water spray, dry chemical, foam or carbon dioxide to extinguish |
| Unusual Fire or Explosion Hazards: | None known |
| Fire-Fighting Instructions: | According to the National Fire Protection Association Guide, use water spray dry chemical, foam or carbon dioxide. A direct stream of water or foam may cause frothing. Use water spray to disperse the vapors and to provide protection for person attempting to stop the leak. |
| Fire-Fighting Equipment: | Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode. |
| Unusual Fire Fighting procedures: | Not required |
| Other Information: | Products evolve when subjected to heat or combustion, carbon monoxide and carbon dioxide may be found on burning in limited air supply. |

SECTION 6 - Accidental Release Measures

| | |
|---------------------------------|--|
| Spill / Leak Procedures: | Ventilate area. Avoid breathing vapor. Wear appropriate person protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into |
|---------------------------------|--|

Regulatory Requirements: sewers and waterways. Avoid contact with skin, eyes and clothing. If more than 10.539 pounds of product is spilled, then report spill according to SARA 304 and / or CERCLA 102(a) requirements, unless product qualifies for petroleum exemption {CERCLA Section 101 (14)}

SECTION 7 - Handling and Storage

Handling Precautions: Minimal feasible handling temperatures should be maintained. Empty containers contain product residue and may be dangerous.

Storage Requirements: Periods of exposure to high temperature should be minimized. Water contamination should be avoided. Keep containers away from open flames. ETHYLENE GLYCOL BASE - Ethylene Glycol has produced birth defects in rodents. Do not store near food.

SECTION 8 - Exposure Controls / Personal Protection

Ventilation: Normal to maintain exposure below TLV

Permissible Concentrations in Air: 10 mg/cubic for particular mist; 50 ppm (125 mg/cubic meter) ceiling limit for Ethylene Glycol (ACGIH 1984-1985)

Respiratory Protection: Supplied air respiratory protection for cleaning large spills or upon entry into tanks vessels, or other confined spaces. Use a NIOSH approved organic vapor and gas respirator with mist filter.

Eye Protection: Chemical type goggles or face shield optional

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles.

Work and Hygienic Practices: Exposed employees should exercise reasonable personal cleanliness, this includes cleansing exposed skin areas several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes. Launder before reuse.

Comments: Remove this material from your shoes and clean personal protective equipment. 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

Appearance and odor: Clear liquid with a mild odor (may contain dye in one of several colors)

Boiling Point (760 mm HG): 226 F min.

Freezing / Melting Point: -34 F max.

Specific Gravity (water=1) 1.065 min.

Vapor Density (air=1) 1.8

Percent Volatile by Volume: NIL

Evaporation Rate (butyl acetate=1) Not determined

Solubility in Water (% by wt) 100%

Vapor Pressure (at 20 C) 18mm Hg

pH: 7.5 - 11.0

Viscosity SUS @100F Less than > 20 cst

SECTION 10 - Stability and Reactivity

Stability: Stable
Polymerization: Does not occur
Chemical Incompatibilities: Normally un-reactive, but try to avoid strong oxidizers, strong acids and strong bases at high temperatures
Conditions to avoid: High temperatures above 413 C (775 F) (product can decompose)
Hazardous decomposition products: Carbon dioxide, carbon monoxide

SECTION 11 - Toxicological Information

Eye Effects: Believed to cause slight eye irritation
Skin Effects: Can be irritating to skin upon prolong 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
Teretogenicity: Not Teratogenic

SECTION 12 - Ecological Information

Ecotoxicity: Oral: Believed to be 4.7-8.5 g/kg (rat), moderately toxic
Inhalation: Not Determined
Dermal: Believed to be 1-3 g/kg (rabbit); slightly toxic
Other: Not dtermined
Irritation Index/Estimation of Irritation (Species)
Skin: Believed to be 0.5-1.8/8.0 (rabbit); slightly irritating
Eyes: Believed to be 15-25/110 (rabbit) slightly irritating
Soil Absorption/Mobility: Not Determined

SECTION 13 - Disposal Considerations

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 Cleaner and Disposal: Container 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: Not regulated
Shipping Symbols: Not applicable

Hazard Class: Not applicable
UN Number: Not regulated unless shipping container holds at least 10,539 pounds
Packing Group: Not applicable
Label: Not applicable
Special Provisions (172.102) Not applicable
Bulk Shipments:
DOT Proper Shipping Name: Environmentally hazardous substance liquid, n.o.s. (Ethylene Glycol)
UN Number: UN3082
Label Requirement: Class 9, UN 3082

SECTION 15 - Regulatory Information

EPA Regulations

RCRA Hazardous Waste Number and RCRA Hazardous Waste Classification Unused product is not classified as a hazardous waste by RCRA criteria

CERCLA Hazardous Substance and CERCLA Reportable Quantity: Does not contain any ingredients listed as a CERCLA hazardous substance.

SARA Toxic Chemical and SARA EHS: Contains following substance which is listed in Title III
Ethylene Glycol
SARA 313 Information
SARA Hazard Category: An immediate health hazard
A delayed health hazard

OSHA Regulations:

State Regulations:

Other: All components listed on both TSCA (USA) and DSL (Canada) inventory.

Canadian WHIS CLASSIFICATION: Class D, Division 2, Subdivision B (A toxic material causing other chronic effects)

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, disposal of this product.

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

CONSULT Company listed in Section 1. FOR FURTHER INFORMATION