

Product: Antifreeze, Extended Life Coolant (Pre-Mix, 50/50)

Product #: 92-877770K 1

SECTION I - MANUFACTURER INFORMATION

Name: Mercury Marine

Emergency: 800-424-9300 (ChemTrec)

Address: W6250 W. Pioneer Rd.

Information: 920-929-5418

PO Box 1939

Date Prepared: 06-19-00

Fond du Lac WI 54936-1939

Revised:

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components*	OSHA TWA	ACGIH TLV	Other	% (Opt.)
Ethylene Glycol (107-21-1)	50ppm	127mg/m ³		90-97
Diethylene Glycol (111-46-6)	N/D	N/D		< 5
Corrosion Inhibitor (Mixture)	N/D	N/D		< 5
Water (7732-18-5)	N/D	N/D		< 4

*Specific Chemical Identity, Common Name (CAS)

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 349°F

Specific Gravity (H₂O=1): 1.12 @ 60°F

Vapor Pressure (mmhg): < 0.1 @ 68°F

Melting Point: N/D

Vapor Density (Air=1): > 1

Evaporation Rate: Nil

Solubility in Water: Fully miscible with water

(Butyl Acetate=1)

Appearance and Odor: Orange fluid; mild, sweet odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 244°F ASTM D 92 (COC) for Ethylene Glycol

Flammable Limits: LEL - N/D UEL - N/D

Extinguishing Media: Water spray, dry chemical, alcohol foam, all-purpose AFFF or Carbon Dioxide

Special Fire Fighting Procedures: Evacuate area and fight fire from a safe distance. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water spray to cool adjacent structures and to protect personnel. Safely shut off source of flow, if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage tank due to fire. Fire fighters must wear MSHA/NIOSH approved, positive-pressure breathing apparatus (SCBA) with full-face mask and full protective equipment.

Unusual Fire and Explosion Hazards: Dense smoke may be generated while burning. Toxic fumes, gases, or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back.

SECTION V - REACTIVITY DATA

Stability: Unstable () Stable (X) At room temperatures and pressure

Conditions to Avoid: High temperatures and product contamination

Incompatibility (Materials to Avoid): Contact with acids and oxidizing materials

Hazardous Decomposition or Byproducts: Smoke, Carbon Monoxide and Dioxide, and other aldehydes or incomplete combustion. Oxides of Carbon, Nitrogen, Sulfur, reactive hydrocarbons and irritating vapors.

Hazardous Polymerization: May Occur () Will Not Occur (X)

ADDITIONAL INFORMATION

Mercury Marine Emergency Information Number: 920-929-5000

Manufacturer, Lubrication Technologies Inc., Emergency Number: 763-545-0707

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry: Inhalation (Y) Skin (Y) Eye (Y) Ingestion (Y)

Health Hazards (Acute and Chronic): See Signs and Symptoms of Exposure

Carcinogenicity: NTP (N) IARC Monographs (N) OSHA Regulated (N)

Signs and Symptoms of Exposure: Eye - Direct contact may cause irritation, redness, tearing, and blurred vision. Skin - Brief contact may cause irritation. Prolonged contact may cause more severe irritation and discomfort, seen as local redness and swelling. Inhalation - Vapors or mist, in excess of permissible concentrations or in unusually high concentrations, may cause irritation of the nose and throat, headache, nausea, and drowsiness. Ingestion - Lethal dose for an adult is 1-2mL per kilogram or about 4 ounces (1/2 cup). Symptoms include: headache, weakness, confusion, dizziness, staggering, slurred speech, loss of coordination, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty in 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.

Medical Conditions Generally Aggravated by Exposure: N/D

Emergency and First Aid Procedures: Eye - Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention. Skin - Wash affected area with plenty of soap and water for several minutes. Get medical attention if irritation develops or persists. Inhalation - Remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists. Ingestion - If person is conscious and can swallow, immediately give two glasses (16 oz.) of water. Induce vomiting as directed by medical personnel. Get medical attention. Never give anything by mouth to an unconscious or convulsing person.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled: Immediately isolate any source of ignition. Evacuate and ventilate area. Personnel wearing proper protective equipment should contain spill immediately with inert materials (such as sand, earth, or chemical spill pads) by forming dikes. These dikes should prevent material from entering sewers and waterways. Large Spill - Once contained, may be picked up using explosion-proof, non-sparking vacuum pumps, shovels, or buckets. Place in suitable containers for disposal. For large spills of 5,000 lbs. or 500 gallons, user should notify appropriate authorities according to SARA 304 and/or CERCLA 102(a) requirements.

Waste Disposal Method: The user of the product is responsible to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous. All disposals must comply with federal, state, and local regulations.

Precautions to be taken in Handling and Storing: Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers may retain product residue that may exhibit hazards of material. Therefore, do not pressurize, cut, glaze, weld, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

Other Precautions: KEEP AWAY FROM CHILDREN!

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type): None required if airborne concentrations are maintained below threshold limits listed in Section II. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements should be followed.

Ventilation: Local Exhaust & Mechanical: Provide adequate ventilation when working with material in enclosed area to maintain concentrations below the specified exposure levels.

Protective Gloves: Impervious gloves such as neoprene or nitrile rubber

Eye Protection: Safety glasses with side shields or vented/splash-proof goggles

Other Protective Clothing or Equipment: Use of an apron and overboots of chemical impervious materials is recommended. Wash before reuse or discard contaminated clothing/boots. Eyewash stations and showers should be available in areas where this material is used and stored.

Work/Hygiene Practices: Always follow good housekeeping and personal hygiene practices.

N/D = NOT DETERMINED (NO DATA)

N/E = NONE ESTABLISHED

Y = YES

N/A = NOT APPLICABLE

N/AV = NOT AVAILABLE

N = NO