Prepared according to Global Harmonized System (GHS) standards

SECTION1 CHEMICALPRODUCTIDENTIFICATION

Mercury Marine
W6250 Pioneer Road
Fond Du Lac, WI 54936-1939
Tel: 920-929-5000

Product Trade Name: **Quicksilver Premixed 50-50 Extended Life Coolant**

Part Number(s): CAS Number:	877770Q 1 Mixture
Synonyms/Other:	N/A
Recommnended Use:	Glycol Coolant
Restrictions on Use:	Not determined.
Created Date:	1/23/2014
Preparation/Revision Date:	1/23/2014
Transportation Emergency	1-800-424-9300 (CHEMTREC US) 1-703-527-3887 (CHEMTREC INTERNATIONAL)
MSDS CODE:	137-1866Q

SECTION2 HAZARDIDENTIFICATION

Appearance:	Orange fluid
Odor:	Mild, sweet odor
Classification:	Skin corrosion / irritation category 3 Acute Toxicity - oral category 4
Target Organs:	Skin, Renal
Pictogram(s):	
Signal Word:	WARNING
Hazard Statement:	H302 - Harmful if swallowed H316 - Causes mild skin irritation
Other Hazards:	Not determined.
Prevention:	P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product
Response:	P330 - Rinse mouth P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell P332+P313 - If skin irritation occurs: Get medical attention
Storage Procedures:	None required.
Disposal:	P501 - Dispose of contents and container in accordance with local, state, and national regulations
Other:	See section 11 for complete health hazard information.

SECTION3 COMPOSITIONOFINGREDIENTS

Component	CAS Number	Percentage (by weight)
Ethylene Glycol	107-21-1	40-50%
Organic Acid Salts	Proprietary	1.0-2.0%
Denatonium Benzoate	3734-33-6	<0.1%

SECTION4 FIRSTAIDMEASURES

Eye Contact: If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

Skin Contact: Avoid direct contact. Wear chemical protective clothing, if necessary. Wash skin with lukewarm, gently flowing water and mild soap until product is removed. Call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation: Get medical advice or attention if you feel unwell or are concerned.

Ingestion: Get medical advice or attention if you feel unwell or are concerned.

Other: Notes to Physician:
It is estimated that the lethal oral dose to adults is of the order of 1.0 ml/kg. Ethylene glycol is metabolized by alcohol dehydrogenate to various metabolites including glyceraldehydes, glycolic acid and oxalic acid which cause an elevated anion-gap metabolic acidosis and renal tubular injury. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, CNS depression, and kidney injury. Urinalysis may show albuminuria, hematuria and oxaluria. Clinical chemistry may reveal anion-gap metabolic acidosis and uremia. A continuous infusion of 5% sodium bicarbonate with frequent monitoring of electrolytes and fluid balance is used to achieve correction of metabolic acidosis and forced diuresis. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood ethylene glycol concentration greater than 25 md/dl, or compromise of renal functions.

SECTION5 FIREFIGHTINGMEASURES

Flash Point: 118℃ (244℉) typical by ASTM D 92 (COC) for ethyle ne glycol.

Flammable limits: Not determined.

Extinguishing media: Use water spray, dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.

Special firefighting procedures: DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Unusual fire & expolsion hazards: Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard.

Byproducts of combustion: Fires involving this product may release COx, NOx, SOx, reactive hydrocarbons and irritating vapors.

Autoignition temperature: Not determined.

Explosion data: Not determined. Care should always be exercised in dust/mist areas.

Other: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION6 ACCIDENTALRELEASEMEASURES

Spill control procedures (land): Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will 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, and disposed of in suitable containers for disposal.

Spill control procedures (water): Material will readily mix with water. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard at 800-424-8802).

Waste disposal method: Do not empty into drains. 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. See Section 14.

Other: Not applicable.

SECTION7 HANDLINGANDSTORAGE

Handling procedures: Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers retain product residue which 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.

Storage procedures: Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

Additional information: No additional information.

SECTION8 EXPOSURECONTROLS/PERSONALPROTECTION

Personal protection: Applicable mainly to persons in repeated contact situations such as packaging of product, service/maintenance, and cleanup/spill control personnel.

Respiratory protection: None required if ventilation is adequate. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. Where misting may occur, wear an MSHA/NIOSH approved (or equivalent) half-mask form dust/mist air purifying respirator.

Eye protection: Eye protection is strongly recommended. Wear safety glasses with side shields or vented/splash proof goggles (ANSI Z87.1 or approved equivalent).

Hand protection: Impervious, chemically resistant gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.

Other protection: Use of an apron and overboots of chemically impervious materials such as neoprene or nitrile rubber is recommended based on level of activity and exposure. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.

Local control measures: Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specifed exposure. Eyewash stations and showers should be available in areas where this material is used and stored.

Other: Consumption of food and drink should be avoided in work areas where product is present. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION9 PHYSICALANDCHEMICALPRPERTIES

Appearance:	Clear, orange fluid
Odor:	Mild, sweet odor
Odor threshhold:	Not determined.
pH:	9
Melting/Freezing point:	-37℃ (-34℉)
Initial boiling point:	130℃ (265℉)
Boiling range:	Not determined.
Flash point:	118℃. for Ethylene Glycol
Evaporation rate:	Not determined.
Flammability:	Not determined.
Upper flammable limit:	Not determined.
Lower flammable limit:	Not determined.
Vapor pressure:	Not determined.
Vapor density:	Not determined.
Relative density:	1.07 g/cm3 at 60℉.
Solubility:	Fully miscible in water, partially miscible in petroleum solvents.
Partition Coefficient:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Not applicable.
Other	Not applicable.

SECTION10 STABILITYANDREACTIVITY

Reactivity Chemical stability: Hazardous polymerization: Conditions to avoid: Incaompatability with other materials:	Material is chemically stable at room temperatures and pressure. Will not occur. Avoid high temperatures and product contamination. Avoid contact with acids and oxidizing materials.
Decomposition products:	Oxides of COx, NOx, SOx, reactive hydrocarbons and irritating vapors.
Other:	Not applicable.

SECTION11 TOXICOLOGICALINFORMATION

Acute toxicity (LD50) *See note at the bottom of the section

Oral: Dermal:	300 - 2000 mg/kg
Inhalation:	>5000 mg/kg
Skin irritation:	>20.0 mg/l
Eye irritation:	Causes mild skin irritation
Dermal sensitization:	Non-irritant
Respiratory sensitization:	Not expected to have a sensitizing effect.
Aspiration Hazard:	Not expected to have a sensitizing effect.
	Not applicable

Chronic Toxicity

Mutagenicity:	Not suspected of causing genetic defects
Carcinogenicity:	Not suspected of causing cancer.
Reproductive toxicity:	Not expected to have adverse effects.
STOT-single exposure:	Not expected to have adverse effects.
STOT-repeated exposure:	Not expected to have adverse effects.
Other:	*All data in this section is based off calculations from Part 3 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

SECTION12 ECOLOGICALINFORMATION

Environmental toxicity

Fish:	> 100 mg/l.
Invertebrates:	> 100 mg/l.
Aquatic plants:	> 100 mg/l.
Microorganism:	> 100 mg/l.
Persistence/Degradability:	This product is expected to be readily biodegradable. The bidegradability of this material is based on an evaluation of data of compounds of a similar nature.
Bioaccumulation:	Not determined.
Mobility in soil:	Not determined.
Other:	All classifications are based on calculations in Part 4 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

SECTION13 DISPOSALCONSIDERATIONS

Waste disposal:	Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. This product unadulterated by other materials may be classified as a non-regulated waste in some areas - but still needs to be disposed of at approved facilities. Waste management should be in full compliance with federal, state, and local laws.
Other	The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

SECTION14 TRANSPORTINFORMATION

Land Transport (DOT):	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s (contains Ethylene Glycol), 9, Packing Group III
Land Transport (TDG):	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s (contains Ethylene Glycol), 9, Packing Group III
Land Transport (IMDG):	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s (contains Ethylene Glycol), 9, Packing Group III
Land Transport (IATA):	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s (contains Ethylene Glycol), 9, Packing Group III
Other:	***Product is not regulated in quantities under 5,000 pounds in a single container according to 49 CFR §172.101 Appendix A.***

SECTION15 REGULATORYINFORMATION

Federal Regulation

Clean water act/oil: Not applicable.

TSCA: All components of this material are listed in the U.S. TSCA Inventory.

Other TSCA: Not applicable.

SARA title III: Section 302/304 extremely hazardous substances:

None.

Section 311, 312 hazard categorization:

Acute (immediate health effects):	YES
Chronic (delayed health effects):	NO
Fire (hazard):	NO
Reactivity (hazard):	NO
Pressure (sudden release hazard):	NO

Section 313 toxic chemicals:

Ethylene glycol is subject to Form R reporting requirements under Section 313.

CERCLA: For stationary/moving sources – reportable quantity (due to): 5,000 lbs due to ethylene glycol.

State and International Regulations

Right-to-know Ethylene Glycol (Florida, Massechusetts, New Jersey, Minnesota, Pennsylvania)

California - The normal consumer use of this product does not result in exposure to chemicals known to the state of California to cause Cancer and/or reproductive harm above the significant risk level for carcinogens or the maximum allowable dose levels for reproductive toxins.

Canada (WHMIS): D2A - material has potential toxic effects.

Other: A release of this product, as supplied, is exempt from reporting under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). However, releases may be reportable to the Nation Response Center under the Clean Water Act, 33 U.S.C. 1321(b)(3) and (5) - see head of Section 15. Failure to report may result in substantial civil and criminal penalties.

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

SECTION16 OTHERINFORMATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	1	1	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	None	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Version: I

Revisions / Comments: None.