

Product:Quicksilver Marine Batteries – (Marine Cranking or AMP in parenthesis) followed by product #
 Marine Starting: (465) 823746;
 Starting: (525) 826745, 823745 1; (625) 879797
 Starting & Deep Cycle: (225) 879798, 883170; (630) 823744, 823744 1; (730) 850146, 850146 1;
 (515) 850147, 850147 1; (1400) 850149, 850149 1; (1725) 850150, 850150 1;
 Dual Purpose Starting & Deep Cycle: (670) 823743, 823743 1; (900) 850148, 850148 1;
 Prevailer Gel Dryfit: (550) 879804; (665) 823742, 823742 1; (725) 879803; (1550) 879801;
 (1280) 879802
 Exide Personal Water Craft: (185) 879806; (240) 850142, 850142 1; (270) 879805; (300) 850143,
 850143 1; (335) 850144; (335) 850145, 850145 1;
 Superior Performance: (890) 879799; (950) 879800;

SECTION I - MANUFACTURER INFORMATION

Name:	Mercury Marine	Emergency:	800-424-9300 (ChemTrec)
Address:	W6250 W. Pioneer Rd. PO Box 1939 Fond du Lac WI 54936-1939	Information:	920-929-5418
		Date Prepared:	02-01-93
		Revised:	02-96

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components*	OSHA PEL	ACGIH TLV	Other	% (Opt.)
Inorganic Compounds:	(ug/m ³)			
Lead (7439-92-1)	50	150		53
Antimony (7440-36-0)	500	500		0.2
Arsenic (7440-38-2)	10	200		0.003
Calcium (7440-70-2)	N/D	N/D		0.02
Tin (7440-31-5)	2000	2000		0.06
Electrolyte (sulfuric acid/water/solution)(7664-93-9)	1000	1000		30-40
Case Material:				
Polypropylene (9003-07-0)	N/A	N/A		5-6
Hard Rubber (No CAS)	N/A	N/A		N/A
Other:				
Silicon Dioxide (60676-86-0) gel cell batteries only	N/A	N/A		3-5

* Specific Chemical Identity, Common Name (CAS)

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

ELECTROLYTE:
Boiling Point: 203-240°F (for S.G. range) **Specific Gravity (H₂O=1):** 1.230-1.350
Vapor Pressure (mmhg): 17-11 @ 77°F **Melting Point:** N/A
Vapor Density (Air=1): > 1 **Evaporation Rate:** < 1
Solubility in Water: 100% **(Butyl Acetate=1)**
Appearance and Odor: A clear liquid with a sharp penetrating, pungent odor. A battery is a manufactured article; no apparent odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): N/A
Flammable Limits: LEL - 4.1% Hydrogen Gas UEL - 74.2%
Extinguishing Media: Carbon Dioxide, foam, dry chemical
Special Fire Fighting Procedures: If batteries are on charge, shut off power. Use positive pressure, self-contained breathing apparatus. Water applied to electrolyte generates heat and causes it to spatter. Wear acid-resistant clothing.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (cont)

Unusual Fire and Explosion Hazards: Highly flammable hydrogen gas is generated during charging and operation of batteries. To avoid risk of fire or explosion, keep sparks or other sources of ignition away from batteries. Do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries. Follow manufacturer's instructions for installation and service.

SECTION V - REACTIVITY DATA

Stability: Unstable () Stable (X)

Conditions to Avoid: Prolonged overcharge at high current, sources of ignition.

Incompatibility (Materials to Avoid): Electrolyte (Water and Sulfuric Acid solution): Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Lead compounds: Avoid contact with strong acids, bases, halides, halogenates, Potassium Nitrate, permanganate, peroxides, nascent hydrogen and reducing agents.

Hazardous Decomposition or Byproducts: Electrolyte (Water and Sulfuric Acid Solution): Sulfur Trioxide, Carbon Monoxide, Sulfuric Acid Mist, Sulfur Dioxide, Hydrogen. Lead compounds: Temperatures above the melting point are likely to produce toxic metal fume, vapor or dust; contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.

Hazardous Polymerization: May Occur (N/D) Will Not Occur (N/D)

SECTION VI - HEALTH HAZARD DATA

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

Health Hazards (Acute and Chronic): **Acute: Electrolyte (Water and Sulfuric Acid Solution):** Severe skin irritation, damage to cornea may cause blindness, upper respiratory irritation. **Lead compounds:** Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscular aches and weakness, sleep disturbances and irritability. **Chronic: Electrolyte:** Possible erosion of tooth enamel; inflammation of nose; throat and bronchial tubes. **Lead compounds:** Anemia; neuropathy; particularly of the motor nerves, with wrist drop; kidney damage; reproductive changes in both males and females. **Carcinogenicity: Electrolyte (Water and Sulfuric Acid Solutions):** Category I carcinogen. This classification does not apply to sulfuric acid solutions in static liquid state or to electrolyte in batteries. Batteries subjected to abusive charging at excessively high currents for prolonged periods of time without vent caps in place may create a surrounding atmosphere of the offensive strong inorganic acid mist containing Sulfuric Acid. **Lead compounds:** Listed as a 2B carcinogen, likely in animals at extreme doses. Proof of carcinogenicity in humans is lacking at present.

Signs and Symptoms of Exposure: Electrolyte (Water and Sulfuric Acid Solutions): Inhalation - Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation. Ingestion - May cause severe irritation of mouth, throat, esophagus, and stomach. Skin - Severe irritation, burns, and ulceration. Eye - Severe irritation, burns, cornea damage, blindness. **Lead compounds:** Inhalation - May cause irritation of upper respiratory tract and lungs. Ingestion - May cause abdominal pain, nausea, vomiting, diarrhea, and severe cramping. This may lead rapidly to systemic toxicity. Skin - Not absorbed through the skin. Eye - May cause irritation.

Medical Conditions Generally Aggravated by Exposure: Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of electrolyte (water and sulfuric acid solution) with skin may aggravate skin diseases such as eczema and contact dermatitis. Lead and its compounds can aggravate some forms of kidney, liver, and neurologic diseases.

SECTION VI - HEALTH HAZARD DATA (cont)

Emergency and First Aid Procedures: Electrolyte (Water and Sulfuric Acid Solutions): Inhalation - Remove to fresh air. If breathing is difficult, give oxygen. Ingestion - Give large quantities of water; DO NOT INDUCE VOMITING; consult physician. Skin - Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes. Eye - Flush immediately with large amounts of water for at least 15 minutes; consult physician. **Lead Compounds:** Inhalation - Remove from exposure, gargle, wash nose and lips; consult physician. Ingestion - Consult physician immediately. Skin - Wash immediately with soap and water. Eye - Flush immediately with large amounts of water for at least 15 minutes; consult physician.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled: Stop flow of material and contain/absorb small spills with dry sand, earth, vermiculite. Do not use combustible materials. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of unneutralized acid to sewer.

Waste Disposal Method: Send spent batteries to secondary lead smelter for recycling. Place neutralized slurry into sealed containers and dispose of as hazardous waste, as applicable. Large water-diluted spills, after neutralization and testing, should be managed in accordance with approved Federal, State, and Local requirements. Consult state environmental agency and/or federal EPA.

Precautions to be taken in Handling and Storing: Store batteries in cool, dry, well-ventilated area with impervious surfaces and adequate containment in the event of spills. Store under roof for protection against adverse weather conditions. Separate from incompatible materials. Store and handle only in areas with adequate water supply and spill control. Avoid damage to containers. Keep away from fire, sparks, and heat.

Other Precautions: KEEP AWAY FROM CHILDREN!

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type): None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH/MSHA-approved respiratory protection.

Ventilation: Local Exhaust (N) Mechanical (Y) Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid-resistant.

Protective Gloves: Rubber or plastic acid-resistant gloves with elbow-length gauntlet

Eye Protection: Chemical goggles or face shield

Other Protective Clothing or Equipment: Acid-resistant apron. Under severe exposure or emergency conditions, wear acid-resistant clothing and boots. Eyewash stations and showers should be provided for areas where sulfuric acid is handled in concentrations greater than 1%.

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

ADDITIONAL INFORMATION

Mercury Marine Emergency Information Number: 920-929-5000

Manufacturer, Exide Corp., Emergency Information Number: 800-424-9300 (ChemTrec)

N/D = NOT DETERMINED (NO DATA) N/E = NONE ESTABLISHED Y = YES

N/A = NOT APPLICABLE N/AV = NOT AVAILABLE N = NO

Pursuant to Proposition 65: Certain raw materials used in making this product may contain small amounts of materials as impurities which are regulated by Proposition 65 which applies to a list of chemicals named by the Governor of California as carcinogens or reproductive toxins. Warning requirements for specific chemicals take effect one year after they are added to the Governor's List. Other chemicals already added to the Governor's List will be regulated under Proposition 65.