

NAPA

BATTERY Acid

I. PRODUCT IDENTIFICATION

Distributor's Name & Address                      CHEMICAL/TRADE NAME      Battery Electrolyte  
Exide Technologies                                      (as used on label)  
13000 Deerfield Pkwy., Bldg. 200  
Alpharetta, GA 30004                                      CHEMICAL FAMILY/  
CLASSIFICATION                      Battery fluid acid

FOR INFORMATION  
(610)921-4052

Fred Ganster,  
Environmental, Safety & Health

DATE REVISED:      October 1, 2001  
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FOR EMERGENCY

CHEMTREC (800)424-9300  
24-hour Emergency Response Contact  
Ask for Environmental Coordinator

CHEMTREC INTERNATIONAL  
(703)527-3887 - Collect

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Approximate Air Exposure Limits (ug/m3)

Components	CAS Number	% by Wt.	OSHA	ACGIH	NIOSH
Sulfuric Acid (H2SO4)	7664-93-9	30-40	1000	1000	-
Water (H2O)	-	60-70	-	-	-

NOTE: Sulfuric Acid is water-reactive if concentrated.

III. PHYSICAL DATA

Boiling Point @ 14.7 psia                      -                      203 deg.F  
Melting Point    -                      Not Applicable  
Solubility in Water                                      -                      100%  
Evaporation Rate (Butyl Acetate=1)                      -                      Less than 1  
Appearance & Odor                                      -                      A Clear liquid with a sharp,  
penetrating, pungent odor  
Specific Gravity (H2O=1) @ 60 deg.F                      -                      1.245 TO 1.295  
Vapor Pressure (mm Hg) @ 18 deg.F                      -                      10  
Vapor Density (AIR=1)                                      -                      Greater than 1  
% Volatiles by Weight                                      -                      Not Applicable

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point:                      Not Combustible  
Flammable Limits:                      Not Applicable  
Extinguishing Media:      CO2; dry chemical; water fog; water  
Special Fire Fighting Procedures:      Beware of acid splatter during water  
application and wear acid-resistant clothing, gloves, face and eye  
protection.  
Unusual Fire & Explosion Hazards:      Reacts violently with metals, nitrates,  
chlorates, carbides and other organic material. Reacts with most metals  
to yield explosive/flammable hydrogen gas.

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Stability:     Stable     X  
              Unstable

Conditions to Avoid: Contact with organic materials, combustibles, strong reducing agents, metals, strong oxidizers and water.

Incompatibility: (Materials to avoid)  
Contact with metals may produce toxic sulfur dioxide fumes and sulfur dioxide.

Hazardous Decomposition Products:  
Sulfur trioxide, carbon monoxide, sulfuric acid fumes, and sulfur dioxide.

Hazardous Polymerization:  
Will not occur.

Conditions to avoid:  
Not applicable

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## VI. HEALTH HAZARD DATA

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Routes of Entry:  
Sulfuric acid is harmful by all routes of entry.

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 Contact:  
Severe irritation, burns, and ulceration.

Eye Contact:  
Severe irritation, burns, cornea damage, blindness.

Effects of Overexposure - Acute:  
Severe skin irritation, damage to cornea may cause blindness, upper respiratory irritation.

Effects of Overexposure - Chronic:  
Possible erosion of tooth enamel; inflammation of nose, throat, and bronchial tubes.

Carcinogenicity:  
The National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC) have classified "strong inorganic acid mist containing sulfuric acid" as a substance that is carcinogenic to humans. This classification does not apply to sulfuric acid solutions in static liquid state or to electrolyte in batteries. Inorganic mist (sulfuric acid mist) is not generated during normal use of this product.

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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. Contact of electrolyte (water and sulfuric acid solution) with eyes may damage cornea and/or cause blindness.

Emergency and First Aid Procedures

Inhalation:

Remove to fresh air immediately. 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.

Eyes:

Flush immediately with large amounts of water for at least 15 minutes; consult physician immediately.

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VII. PRECAUTIONS FOR SAFE HANDLING AND USE

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Handling and Storage:

Storage/handling areas should be equipped with eyewashes/safety showers. Handle cautiously; avoid contact with skin and eyes. Handling/storage areas should be equipped with proper containment to capture and neutralize spills.

Spill or Leak Procedures:

Stop flow of material. For small spills, neutralize with soda ash, lime, or sodium bicarbonate. Dilute cautiously with water. Wear acid-resistant protective clothing and equipment.

Waste Disposal Methods:

Place neutralized slurry in sealed containers and dispose of as hazardous waste, as applicable. Large water-diluted spills, after neutralization and testing, should be managed in accordance with local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

Precautionary Labeling:

POISON - CAUSES SEVERE BURNS  
DANGER - EXPLOSIVE GASES  
CORROSIVE - CONTAINS SULFURIC ACID  
KEEP AWAY FROM CHILDREN

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VIII. CONTROL MEASURES

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Respiratory Protection:

None required under normal conditions. If concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

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Local Exhaust:  
150 ppm

Special:  
Acid-resistant ventilation components.

Protective Gloves:  
Rubber/plastic with elbow length gauntlet.

Eye Protection:  
Chemical goggles; safety glasses/face shield.

Other Protective Clothing or Equipment:  
Acid-resistant apron, boots

Work/Hygiene Practices:  
Handle cautiously; avoid contact with skin and eyes.

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#### IX. OTHER REGULATORY INFORMATION

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NFPA Hazard Rating for sulfuric acid: WHMIS Classification for sulfuric acid:  
Flammability (Red) = 0 This material has a WHMIS  
Health (Blue) = 3 classification of E-Corrosive.  
Reactivity (Yellow) = 2  
Sulfuric acid is water-reactive  
if concentrated.

U.S. Department of Transportation:  
Proper Shipping Name: Battery fluid, acid  
Hazard Class/Division: 8  
ID Number: UN2796  
Packing Group: II  
Label Required: Corrosive

RCRA: Spilled sulfuric acid is a characteristic hazardous waste; EPA  
hazardous waste number D002 (corrosivity).

Other Canadian Regulations: All chemical substances in this product are  
listed on the CEPA DSL/NDSL or are exempt from list requirements.

CERCLA (Superfund) and EPCRA:

- (a) Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (Superfund) and EPCRA (Emergency Planning and Community Right to Know ACT) is 1,000 lbs. State and local reportable quantities for spilled sulfuric acid may vary.
- (b) Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 lbs.
- (c) EPCRA Section 302 notification is required if 1,000 lbs. or more of sulfuric acid is present at one site. Battery electrolyte contains 30-40% sulfuric acid. Contact your Exide Representative for additional information.

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#### IX. OTHER REGULATORY INFORMATION (CONTINUED)

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- (d) EPCRA Section 312 Tier Two reporting is required for non-automotive

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batteries if sulfuric acid is present in quantities of 500 lbs. or more and/or if lead is present in quantities of 10,000 lbs. or more.

- (e) Supplier Notification: This product contains toxic chemicals that may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements. For a manufacturing facility under SIC codes 20 through 39, the following information is provided to enable you to complete the required reports:

Toxic Chemical	CAS Number	Approximate % By Weight
Sulfuric Acid	7664-93-9	30-40

If you distribute this product to other manufacturers in SIC codes 20 through 39, this information must be provided with the first shipment of each calendar year.

NOTE: The Section 313 supplier notification requirement does not apply to batteries that are "consumer products".

TSCA:

Ingredients in Exide's batteries are listed in the TSCA Registry as follows:

	CAS NO.	TSCA Status
Electrolyte Sulfuric acid (H2SO4)	7664-93-9	Listed

CAA:

Exide Technologies supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC's and other ozone depleting chemicals (ODC's), defined by the USEPA as Class I substances. Pursuant to Section 611 of the Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, Exide established a policy to eliminate the use of Class I ODC's prior to the May 15, 1993 deadline.

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IX. OTHER REGULATORY INFORMATION (CONTINUED)

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PREPARED BY: ENVIRONMENTAL, SAFETY & HEALTH DEPARTMENT  
EXIDE TECHNOLOGIES  
13000 DEERFIELD PARKWAY, BUILDING 200  
ALPHARETTA, GA 30004

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VENDEE AND THIRD PERSONS ASSUME THE RISK OF INJURY PROXIMATELY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT FOLLOWED AS PROVIDED FOR IN THE DATA SHEET, AND VENDOR SHALL NOT BE LIABLE FOR INJURY TO VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE PROCEDURES ARE FOLLOWED.

ALL PERSONS USING THIS PRODUCT, ALL PERSONS WORKING IN AN AREA WHERE THIS PRODUCT IS USED, AND ALL PERSONS HANDLING THIS PRODUCT SHOULD BE FAMILIAR WITH THE CONTENTS OF THIS DATA SHEET. THIS INFORMATION SHOULD BE EFFECTIVELY COMMUNICATED TO EMPLOYEES AND OTHERS WHO MIGHT COME IN CONTACT WITH THE PRODUCT.

WHILE THE INFORMATION ACCUMULATED AND SET FORTH HEREIN IS BELIEVED TO BE

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ACCURATE AS OF THE DATE HEREOF, EXIDE TECHNOLOGIES MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE FOR THEIR PARTICULAR CIRCUMSTANCES.

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ANY PHOTOCOPY MUST BE OF THIS ENTIRE DOCUMENT

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