

EXIDE CORP -- LEAD-ACID BATTERY -- 6140-00-397-2670

===== Product Identification =====

Product ID:LEAD-ACID BATTERY

MSDS Date:05/01/1991

FSC:6140

NIIN:00-397-2670

MSDS Number: BKNVR

=== Responsible Party ===

Company Name:EXIDE CORP

Address:9176 RED BRANCH RD

City:COLUMBIA

State:MD

ZIP:21045-2059

Country:US

Info Phone Num:410-381-8500

Emergency Phone Num:410-381-8500 OR 215-378-0757

CAGE:90660

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Contractor Identification ===

Company Name:CHICAGO INDUSTRIAL TRADING CO.

CAGE:OK4U5

Company Name:ENERSYS INC

Address:8306PATUXENT RANGE RS SUITE 103

Box:City:JESSUP

State:MD

ZIP:20794-8609

Country:US

Phone:301-381-8500 OR 215-378-0757

CAGE:90660

Company Name:PRO BATTERY CO INC

Address:3941 OAKCLIFF INDUSTRIAL CT

Box:City:ATLANTA

State:GA

ZIP:30340-3408

Country:US

Phone:770-449-5900

CAGE:5X783

===== Composition/Information on Ingredients =====

Ingred Name:LEAD (SARA III)

CAS:

7439-92-1

RTECS #:OF7525000

Fraction by Wt: 60%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.05 MG/M3;1910.1025

ACGIH TLV:0.15 MG/M3;DUST 9192

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:SULFURIC ACID (SARA III)

CAS:7664-93-9

RTECS #:WS5600000

Fraction by Wt: 10 - 30%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9192

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:ANTIMONY (SARA III)

CAS:7440-36-0

RTECS #:CC4025000

Fraction by Wt: 2%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.5 MG/M3

ACGIH TLV:0.5 MG SB/M3; 9192

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA III)

CAS:7440-38-2

RTECS #:CG0525000

Fraction by Wt: 0.2%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.01 MG/M3 (AS)

ACGIH TLV:0.2 MG/M3; 9192

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:POLYPROPYLENE OR STYRENE

9003-53-6/9003-54-7/9003-55-8/9003-56-9/9002-86-2/POLYCARBONATE OR
HARD RUBBER AS CASE MATERIA

CAS:9003-07-0

Fraction by Wt: 5 - 10%

Other REC Limits:NONE SPECI

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Ingred Name:CALCIUM, METAL
CAS:7440-70-2
RTECS #:EV8040000
Fraction by Wt: 0.2%
Other REC Limits:NONE SPECIFIED

Ingred Name:TIN
CAS:7440-31-5
RTECS #:XP7320000
Fraction by Wt: 0.2%
Other REC Limits:NONE SPECIFIED
OSHA PEL:2 MG/M3
ACGIH TLV:2 MG/M3; 9192

Ingred Name:SILICA, CRYSTALLINE - FUSED ,SILICON DIOXIDE, (GEL CELL BATTERIES ONLY)
CAS:60676-86-0
RTECS #:VV7328000
Fraction by Wt: 10%
Other REC Limits:NONE SPECIFIED
OSHA PEL:0.1 MG/M3 RDUST;9293
ACGIH TLV:0.1 MG/M3 RDUST

Ingred Name:SHEET MOLDING COMPOUND (GLASS REINFORCED POLYESTER)- NOTE: PROPYLENE IS THE PRINCIPAL CASE MATERIAL.
Fraction by Wt: 10%
Other REC Limits:NONE SPECIFIED

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===== Hazards Identification =====

LD50 LC50 Mixture:NO INFORMATION GIVEN ON MSDS BY MFR.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:ACUTE-H2SO4 MIST/LEAD DUST. INHALED: MAY CAUSE SEVERE RESPIRATORY IRRITATION. INGESTED: SEVERE IRRITATION. SKIN/ EYES: SEVERE IRRITATION, BURNS, SKIN ULCERATION, CORNEA DAMAGE, BLINDNESS. CHRONIC-POSSIBLE EROSION OF TOOTH ENAMEL, ANEMIA, KIDNEY DAMAGE.
Explanation of Carcinogenicity:ARSENIC IS LISTED AS CARCINOGEN BY NTP, IARC, AND OSHA. LEAD AND INORGANIC LEAD COMPOUNDS ARE LISTED BY NTP AND IARC.
Effects of Overexposure:SEVERE SKIN IRRITATION, DAMAGE TO CORNEA, UPPER RESPIRATORY IRRITATION, HEADACHE, FATIGUE, ABDOMINAL PAIN, LOS

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APPETITE, MUSCULAR ACHES AND WEAKNESS, POSSIBLE EROSION OF TOOTH ENAMEL, INFLAMMATION OF NOSE, THROAT AND BRONCHIAL TUBES, ANEMIA, NEUROPATHY, PARTICULARLY OF THE MOTOR NERVES, WITH WRIST DROP, KIDNEY DAMAGE.

Medical Cond Aggravated by Exposure: PULMONARY CONDITIONS, SKIN DISEASES SUCH AS ECZEMA AND DERMATITIS, KIDNEY, LIVER AND NEUROLOGIC DISEASES.

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First Aid Measures
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First Aid: IF IRRITATION PERSISTS OR IS SEVERE, SEE A DOCTOR. EYE: FLUSH

W/WATER 15 MIN, HOLD LIDS OPEN. SKIN: WASH WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSE. INHALED: REMOVE TO FRESH AIR. AID/RESTORE BREATHING IF NECESSARY. INGESTED: DO NOT INDUCE VOMITING. GIVE 2 LARGE GLASSES OF MILK OR WATER TO DILUTE & GET IMMEDIATE MEDICAL CARE. NOTHING BY MOUTH IF UNCONSCIOUS.

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Fire Fighting Measures
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Lower Limits: 4.1 (H₂)

Upper Limits: 74.2 (H₂)

Extinguishing Med

ia: CARBON DIOXIDE, DRY CHEMICAL, HALOGEN

Fire Fighting Procedures: IF BATTERIES ARE ON CHARGE, SHUT OFF POWER.

USE POSITIVE PRESSURE, SCBA AND ACID RESISTANT CLOTHING. WATER APPLIED TO ELECTROLYTE -> HEAT & CAUSES SPATTERING.

Unusual Fire/Explosion Hazard: HIGHLY FLAMMABLE HYDROGEN GAS IS

GENERATED DURING CHARGING OF BATTERIES. KEEP SPARKS OR OTHER SOURCES OF IGNITION AWAY FROM BATTERIES. DO NOT SHORT TERMINALS!

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Accidental Release Measures
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Spill Release Procedures: STOP FLOW AND CONTAIN / ABSORB SMALL SPILLS

W/ DRY SAND, EARTH, VERMICULITE (DO NOT USE COMBUSTIBLES). IF POSSIBLE CAREFULLY NEUTRALIZE. WEAR ACID RESISTANT CLOTHING, BOOTS, GLOVES, FACE SHIELD. DO NOT ALLOW DISCHARGE OF UNNEUTRALIZED ACID TO SEWER.

Neutralizing Agent: SODIUM BICARBONATE, LIME OR SODA ASH

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Handling and Storage
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Handling and Storage Precautions: STORE IN COOL, DRY, WELL-VENTILATED AREAS WITH

IMPERVIOUS SURFACES AND ADEQUATE SPILL CONTAINMENT.

STORE UNDER ROOF. SEPARATE FROM INCOMPATIBLES.

Other Precautions:STORE & HANDLE ONLY IN AREA W/ADEQUATE WATER SUPPLY AND SPILL CONTROL. AVOID DAMAGE TO CONTAINERS. KEEP AWAY FROM FIRE, SPARKS, AND HEAT.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection:NOT REQUIRED UNDER NORMAL CONDITIONS. WHEN SULFURIC ACID MIST CONCENTRATIONS EXCEED THE PEL, USE NIOSH OR MSHA APPROVED RESPIRATOR

Y PROTECTION.

Ventilation:STORE AND HANDLE IN A WELL VENTILATED AREA. IF MECHANICAL VENTILATION IS USED, COMPONENTS MUST BE ACID RESISTANT.

Protective Gloves:RUBBER OR PLASTIC ACID RESISTANT.

Eye Protection:CHEMICAL GOGGLES OR FACE SHIELD.

Other Protective Equipment:ACID RESISTANT APRON & BOOTS.FOR SEVERE EXPOSURE, ACID RESISTANT CLOTHING & BOOTS.HMIS:EYEWASH STATION AND SAFETY SHOWER

Work Hygienic Practices:HANDLE BATTERIES CAUTIOUSLY TO AVOID SPILLS.

MAKE CERTAIN VENT CAPS ARE ON

SECURELY. AVOID CONTACT W/INTERNAL COMPONENTS

Supplemental Safety and Health

KEY2:KT

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===== Physical/Chemical Properties =====

HCC:C1

NRC/State Lic Num:NONE

Boiling Pt:B.P. Text:203F,95C

Vapor Pres:10

Vapor Density:> 1

Spec Gravity:1.230-1.350

Evaporation Rate & Reference:< 1 (N-BUTYL ACETATE=1)

Solubility in Water:COMPLETE(ELECTROLYTE)

Appearance and Odor:ARTICLE: NO APPARENT ODOR, ELECTROLYTE: CLEAR LIQUID WITH A SHARP, PUNGENT ODOR

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Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

SULFURIC ACID CONTACT W/COMBUSTIBLE AND ORGANIC MATERIALS, STRONG OXIDIZERS OR REDUCERS, METALS, SULFUR TRIOXIDE, WATER.

Stability Condition to Avoid: PROLONGED OVERCHARGE, HIGH TEMPERATURES, OPEN FLAMES, SOURCES OF IGNITION, PROLONGED OVERCHARGE.

Hazardous Decomposition Products: SULFURIC ACID MIST, SULFUR DI/TRIOXIDE, CARBON MONOXIDE, HYDROGEN, TOXIC METAL FUME/VAPOR/DUST, ARSINE GAS.

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===== Disposal Considerations =====

Waste Disposal Methods: PLACE NEUTRALIZED SLURRY INTO SEALED CONTAINERS AND DISPOSE OF AS HAZARDOUS WASTE AS APPLICABLE. LARGE WATER DILUTED SPILLS MAY BE NEUTRALIZED THEN HANDLED I/A/W FEDERAL, STATE & LOCAL REQUIREMENTS. CONSULT STATE AUTHORITIES.

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