

EXIDE CORP -- LEAD-ACID BATTERY -- 6140-01-355-5089

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

Product ID:LEAD-ACID BATTERY

MSDS Date:02/01/1996

FSC:6140

NIIN:01-355-5089

Status Code:A

MSDS Number: CKLHD

=== Responsible Party ===

Company Name:EXIDE CORP

Address:645 PENN STREET

Box:14205

City:READING

State:PA

ZIP:19612-4205

Country:US

Info Phone Num:610-378-0500/0798

Emergency Phone Num:610-378-0500

Prepar

er's Name:ENVIRONMENTAL RESOURCES

Chemtec Ind/Phone:(800)424-9300

CAGE:20038

=== Contractor Identification ===

Company Name:BATTERY OUTLET INC

Address:1608 CAMPOSTELLA RD

Box:City:CHESAPEAKE

State:VA

ZIP:23324

Country:US

Phone:757-545-4442

Contract Num:SP0430-99-M-AJ11

CAGE:0FGN2

Company Name:BATTERY OUTLET INC

Address:1608 CAMPOSTELLA RD

Box:City:CHESAPEAKE

State:VA

ZIP:23324

Country:US

Phone:757-545-4442

Contract Num:SP0430-99-M-F912

CAGE:0FGN2

Company Name:EXIDE CORP

Address:645 PENN STREET

Box:14205  
City:READING  
State:PA  
ZIP:19612-4205  
Country:US  
Phone:610-378-0500/0798  
CAGE:20038

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===== Composition/Information on Ingredients =====  
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Ingred Name:LEAD (SARA 313) (CERCLA)  
CAS:7439-92-1  
RTECS #:OF7525000  
= Wt:53.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:SEE 1910.1025  
ACGIH TLV:0.05MG/M3, A3; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY (SARA 313) (CERCLA)  
CAS:7440-36-0  
RTECS #:CC4025000  
= Wt:.2  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.5 MG/M3  
AC  
GIH TLV:0.5 MG (SB)/M3; 9596  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA 313) (CERCLA)  
CAS:7440-38-2  
RTECS #:CG0525000  
Fraction by Wt: 0.003%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:SEE 1910.1018  
ACGIH TLV:0.01 MG/M3, A1; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:CALCIUM, METAL  
CAS:7440-70-2  
RTECS #:EV8040000  
= Wt:.02  
Other REC Limits:NONE RECOMMENDED

Ingred Name:TIN  
CAS:7440-31-5  
RTECS #:XP7320000  
= Wt:.06  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:2 MG/M3

ACGIH TLV:2 MG/M3; 9596

Ingred Name:SULFURIC ACID (SARA 302/313) (CERCLA) (ELECTROLYTE)

CAS:7664-93-9

RTECS #:WS5600000

Minumum % Wt:30.

Maxumum % Wt:40.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3/3 STEL; 9596

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:POLYPROPYLENE (CASE)

CAS:9003-07-0

RTECS #:TR5000000

Minumum % Wt:5.

Maxumum % Wt:6.

Other REC Limits:NONE RECOMMENDED

Ingred Name:SILICA, CRYSTALLINE - FUSED (GEL CELL BATTERIES ONLY)

CAS:60676-86-0

RTECS

#:VV7328000

Minumum % Wt:3.

Maxumum % Wt:5.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:SEE TABLE Z-3

ACGIH TLV:0.1 MG/M3 RDUST;9596

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===== Hazards Identification =====  
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LD50 LC50 Mixture:TLV FOR SULFURIC ACID IS 1 MG/M3.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ELECTROLYTE (SULFURIC ACID & WATER) IS

HARMFUL BY ALL ENTRY ROUTES. LEAD HAZARDOUS EXPOSURE OCC

URS ONLY

WHEN FUMES, DUST OR VAPOR ARE CREATED: INHALATION: ELECTROLYTE:  
SEVERE RESPIRATORY IRRITATION, LEAD: IRRITATION OF UPPER  
RESPIRATORY TRACT & LUNGS. INGESTION: ELECTROLYTE: SEVERE  
IRRITATION OF MOUTH, THROAT, ESOPHAGUS & STOMACH. LEAD: ABDOMINAL  
PAIN, NAUSEA, VOMITING, DIARRHEA, SEVERE CRAMPING, SYSTEMIC  
TOXICITY. SKIN: ELECTROLYTE: SEVERE IRRITATION, BURNS & ULCERATION.  
LEAD: NOT ABSORBED THROUGH SKIN. EYES: ELECTROLYTE: SEVERE  
IRRITATION, BURNS, CORNEA

DAMAGE, BLINDNESS. LEAD: MAY CAUSE EYE IRRITATION.

Explanation of Carcinogenicity:"STRONG INORGANIC ACID MISTS CONTAINING SULFURIC ACID": IARC HAS CLASSIFIED AS A CATEGORY I CARCINOGEN BUT DOES NOT APPLY TO SULFURIC ACID IN STATIC LIQUID STATE OR TO BATTERY ELECTROLYTE. LEAD COMPOUNDS: LISTED AS 2B CARCINOGEN BY IARC. ARSENIC LISTED BY NTP, IAC, OSHA & NIOSH AS A POTENTIAL CARCINOGEN.

Effects of Overexposure:ELECTROLYTE: ACUTE: SEVERE SKIN IRRITATION, DAMAGE TO CORNEA

A MAY CAUSE BLINDNESS, UPPER RESPIRATORY IRRITATION.

CHRONIC: POSSIBLE TOOTH EROSION, INFLAMMATION OF NOSE, THROAT & BRONCHIAL TUBES. LEAD: ACUTE-HEADACHE, FATIGUE, ABDOMINAL PAIN,LOSS OF APPETITE, MUSCULAR ACHES AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. CHRONIC: ANEMIA, NEUROPATHY-PARTICULARLY OF MOTOR NERVES (EG WRIST DROP), KIDNEY DAMAGE, REPRODUCTIVE CHANGES IN BOTH MALES & FEMALES.

Medical Cond Aggravated by Exposure:INORGANIC LEAD AND ITS COMPOUNDS  
C

AN AGGRAVATE CHRONIC FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES. SULFURIC ACID MISTS CAN AGGRAVATE SKIN DISEASES SUCH AS ECZEMA, DERMATITIS AND LUNG DISEASES.

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===== First Aid Measures =====

First Aid:INHALED-ELECTROLYTE: REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING DIFFICULT, GIVE OXYGEN. LEAD: REMOVE FROM EXPOSURE, GARGLE, WASH NOSE & LIPS. CONSULT PHYSICIAN. INGESTED-ELECTROLYTE: GIVE LARGE QUANTITIES OF WATER. DO NOT INDUCE VOMITING! CONSULT PHYSICIAN. LEAD: CONSULT PHYSICIAN IMMEDIATELY. SKIN-ELECTROLYTE: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHES COMPLETELY, INCLUDING SHOES. LEAD: WASH IMMEDIATELY WITH SOAP & WATER. EYES-ELECTROLYTE: FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CONSULT PHYSICIAN IMMEDIATELY.

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===== Fire Fighting Measures =====

Lower Limits:4.1 HYDROGEN

Upper Limits:74.2

Extinguishing Media:CA

RBON DIOXIDE (CO2), FOAM, DRY CHEMICAL.

Fire Fighting Procedures:USE SELF-CONTAINED BREATHING APPARATUS & ACID-RESISTANT CLOTHING, GLOVES, FACE & EYE PROTECTION. BEWARE OF ACID SPLATTERING. IF BATTERIES ARE ON CHARGE, SHUT OFF POWER TO CHARGING EQUIPMENT.

Unusual Fire/Explosion Hazard:DURING OPERATIONS, BATTERIES GENERATE & RELEASE FLAMMABLE HYDROGEN GAS. THIS GAS, IF IGNITED, MAY CAUSE BATTERY EXPLOSION WITH CASING FRAGMENTS & CORROSIVE LIQUID ELECTROLYTE. CAREFULLY FOLL  
OW MANUFAC TURER'S INSTRUCTIONS FOR  
INSTALLATION & SERVICE.

===== Accidental Release Measures =====

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ABSORB WITH DRY SAND, EARTH, VERMICULITE. IF POSSIBLE, CAREFULLY NEUTRALIZE SPILLED ELECTROLYTE WITH SODA ASH, SODIUM BICARBONATE, LIME, ETC. WEAR ACID-RESISTANT CLOTHES , BOOTS, GLOVES AND FACE SHIELD.DO NOT ALLOW DISCHARGE OF UN-NEUTRALIZED ACID TO SEWER. NEUTRALIZED ACID MUST BE MANAGED  
IN ACCORDANCE WITH APPROVED LOCAL, STATE AND FEDERAL  
REQUIREMENTS.

Neutralizing Agent:SODA ASH, LIME, SODIUM BICARBONATE.

===== Handling and Storage =====

Handling and Storage Precautions:STORE BATTERIES UNDER ROOF IN A COOL, DRY, WELL-VENTILATED AREAS SEPARATED FROM INCOMPATIBLE MATERIALS AND FROM SOURCES OF IGNITION. STORE ON SMOOTH, IMPERVIOUS SURFACES WHICH ARE PROVIDED WITH LIQUID CONTAINMENT. KEEP AWAY FROM METALLIC OBJECTS WHICH C  
OULD BRIDGE THE TERMINALS.

Other Precautions:HANDLE CAREFULLY & AVOID TIPPING. PROHIBIT SMOKING AND AVOID CREATING FLAMES & SPARKS NEARBY TO CHARGING OPERATIONS. CHARGING SPACE SHOULD BE VENTILATED. KEEP BATTERY VENT CAPS IN PLACE. WEAR FACE & E YE PROTECTION WHEN NEAR BATTERIES BEING CHARGED.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATIONS OF SULURIC ACID MIST ARE KNOWN TO

EXCEED PEL, USE

NIOSH OR MSHA APPROVED RESPIRATORY PROTECTION.

Ventilation: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 Equipment:ACID-RESISTANT APRON. UNDER SEVERE EXPOSURE OR EMERGENCY CONDITIONS, WEAR ACID-RESISTANT CLOTHING, GLOVES AND BOOTS.

Work Hygienic

Practices:HANDLE BATTERIES CAUTIOUSLY, DO NOT TIP TO AVOID SPILLS. AVOID BODILY CONTACT WITH INTERNAL COMPONENTS. WEAR PROTECTIVE CLOTHING, EYE & FACE PROTECTION, WHEN FILLING OR HANDLING BATTERIES.

Supplemental Safety and Health

NONE SPECIFIED BY MANUFACTURER.

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

HCC:C1

Boiling Pt:=95.C, 203.F

B.P. Text:203FTO 240F(S.G. RANGE

Vapor Pres:17 TO 11(FOR S.G. RANGE)

Vapor Density:>1 (AIR=1)

Spec Gravity:1.230 TO 1.350 (H

20=1)

Viscosity:NOT SPECIFIED BY MFR.

Evaporation Rate & Reference: