

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

Chemtrec 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

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

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

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

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

LEAD: 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 Conditions Aggravated by Exposure:INORGANIC LEAD AND ITS COMPOUNDS

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

===== 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.

===== 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 COULD 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: