

EXIDE CORP -- LEAD-ACID BATTERY -- 6140-01-031-6882

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

Product ID:LEAD-ACID BATTERY

MSDS Date:02/01/1996

FSC:6140

NIIN:01-031-6882

Status Code:A

MSDS Number: CJZXX

=== Responsible Party ===

Company Name:EXIDE CORP

Address:645 PENN STREET

Box:14205

City:READING (FORMALLY IN HORSHAM)

State:PA

ZIP:19612-4205

Country:US

Info Phone Num:610-378-0500

Emergency Phone Num:

800-424-9300(CHEMTREC)

Preparer'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:SP0430-00M-G561

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 Ingrid

ients =====

Ingred Name:LEAD (SARA 313) (CERCLA)

CAS:7439-92-1

RTECS #:OF7525000

= Wt:53.

Other REC Limits:NOT PROVIDED.

OSHA PEL:0.050 MG/M3

ACGIH TLV:0.050 MG/M3

Code:F

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:NOT PROVIDED.

OSHA PEL:0.5 MG/M3

ACGIH TLV:0.5 MG (SB)/M3

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA 313) (CERCLA)

CAS:7440-38-2

RTECS #:CG0525000

Fraction by W

t: 0.003%

Other REC Limits:NOT PROVIDED.

OSHA PEL:0.01 MG/M3

ACGIH TLV:0.01 MG/M3

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

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

CAS:7664-93-9

RTECS #:WS5600000

Minimum % Wt:30.

Maxumum % Wt:40.

Other REC Limits:NONE RECOMMENDED

OSH

A PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:POLYPROPYLENE (CASE MATERIAL)
CAS:9003-07-0
RTECS #:TR5000000
Minumum % Wt:5.
Maxumum % Wt:6.
Other REC Limits:NONE RECOMMENDED

Ingred Name:HARD RUBBER
Fraction by Wt: UNKNOWN.
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:NOT PROVIDED.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IAR
C:YES OSHA:YES

Health Hazards Acute and Chronic:EFFECTS OF OVEREXPOSURE - ACUTE:
ELECTROLYTE (WATER AND SULFURIC ACID SOLUTION): SEVERE SKIN
IRRITATION, DAMAGE TO CORNEA MAY CAUSE BLINDNESS, UPPER RESPIRATORY
IRRITATION. LEAD COMPOUNDS: SYMPTOMS O F TOXICITY INCLUDE
HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES
AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. EFFECTS OF
OVEREXPOSURE - CHRONIC: ELECTROLYTE (WATER AND SULF URIC ACID
SOLUTION):

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
AND REPRODUCTIVE CHANGES.

Explanation of Carcinogenicity:LEAD COMPOUNDS: LISTED AS 2B CARCINOGEN,
LIKELY IN ANIMALS AT EXTREME DOSES. PROOF OF CARCINOGENICITY IN
HUMANS IS LACKING AT PRESENT. ARSENIC: LISTED BY NATIONAL
TOXICOLOGY PROGRAM (NTP), INTERNATIONAL AGENCY FOR RESEARCH ON

CANCER (IARC), OSHA AND NIOSH AS A CARCINOGEN ONLY AFTER PROLONGED
EXPOSURE AT HIGH LEVELS.

Effects of Overexposure:INHALATION: ELECTROLYTE (WATER AND SULFURIC
ACID SOLUTION): BREATHING OF SULDURIC ACID VAPORS OR MISTS MAY
CAUSE SEVERE RESPIRATORY IRRITATION. LEAD COMPOUNDS: INHALATION OF
LEAD DUST OR FUMES MAY CAU SE IRRITATION OF UPPER RESPIRATORY TRACT
AND LUNGS. INGESTION: ELECTROLYTE MAY CAUSE SEVERE IRRITATION OF
MOUTH, THROAT, ESOPHAGUS AND STOMACH. LEAD COMPOUNDS:

ABDOMINAL

PAIN, NAUSEA, VOMITING, DIARRH EA AND SEVERE CRAMPING. MAY LEAD TO SYSTEMIC TOXICITY. SKIN CONTACT: SEVERE IRRITATION, BURNS AND ULCERATION. LEAD COMPOUNDS NOT ABSORBED. EYE CONTACT: SEVERE IRRITATION, BURNS, CORNEA DAMAGE, BLINDN ESS. LEAD COMPOUNDS MAY CAUSE IRRITATION

Medical Cond Aggravated by Exposure:CONTACT OF ELECTROLYTE WITH SKIN MAY AGGRAVATE DISEASES SUCH AS ECZEMA AND DERMATITIS. MIST CAN AGGRAVATE PULMONARY CONDITION. LEAD AND ITS COMPOUNDS C AN AGGRAVATE KIDNEY, LIVER AND NEUROLOGIC DISEASES

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

First Aid:INHALATION: ELECTROLYTE (WATER AND SULFURIC ACID SOLUTION): REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING IS DIFFICULT, GIVE OXYGEN. LEAD: REMOVE FROM EXPOSURE, GARGLE, WASH NOSE AND LIPS; CONSULT PHY SICIAN. INGESTION: ELECTROLYTE: GIVE LARGE QUANTITIES OF WATER; DO NOT INDUCE VOMITING; CONSULT PHYSICIAN. LEAD: CONSULT PHYSICIAN IMMEDIATELY. SKIN: ELECTROLYTE (WATER AND SULFURIC ACID SOLUTION): FL USH WITH LARGE AMOUNT OF WATER FOR AT LEAST 15 MINUTES; REMOVE CONTAMINATED CLOTHING. LEAD: WASH IMMEDIATELY WITH SOAP AND WATER. EYES: FLUSH IMMEDIATELY WITH LARGE AMOUNT OF WATER FOR AT LEAST 15 MIN UTES; CONSULT PHYSICIAN IMMEDIATELY.

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

Lower Limits:4.1;HYDROGEN
Upper Limits:74.2
Extinguishing Media:CO2, FOAM, DRY CHEMICAL.
Fire Fighting Procedures:USE POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS. BEWARE OF ACID SPLATTER IF WATER IS USED. WEAR ACID-RESISTANT CLOTHING, GLOVES, FACE AND EYE PROTECTION. IF BATTERIES ON CHARGE, SHUT OFF PO WER TO CHARGING EQUIPMENT. STRINGS OF CONNECTED BATTERIES POSE RISK OF ELECTRIC SHOCK EVEN WHEN CHARGER IS SHUT DOWN.
Unusual Fire/Explosion Hazard:IN OPERATION, BATTERIES GENERATE AND RELEASE FLAMMABLE HYDROGEN GAS. ALWAYS ASSUME TO CONTAIN THIS GAS. IF IGNITED BY BURNING

CIGARETTE, NAKED FLAME OR SPARK, MAY CAUSE BATTERY EXPLOSION WITH DISPERSION OF CASING FRAGMENTS AND CORROSIVE LIQUID ELECTROLYTE. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND SERVICE.

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

Spill Release Procedures: STOP FLOW OF MATERIAL, CONTAIN/ABSORB SMALL SPILLS WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. CAREFULLY NEUTRALIZE 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. NEUTRALIZED ACID MUST BE MANAGED IN ACCORDANCE WITH APPROVED REQUIREMENTS.
Neutralizing Agent: SODA ASH (SODIUM CARBONATE), QUICKLIME (CALCIUM OXIDE), SODIUM BICARBONATE

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

Handling and Storage Precautions: STORE BATTERIES UNDER ROOF IN COOL, DRY, WELL-VENTILATED AREAS WHICH ARE SEPARATED FROM INCOMPATIBLE MATERIALS AND FROM ACTIVITIES WHICH MAY CREATE FLAMES, SPARKS OR HEAT. STORE ON SMOOTH, IMPERVIOUS SURFACES WHICH ARE PROVIDED WITH MEASURES FOR LIQUID CONTAINMENT IN THE EVENT OF ELECTROLYTE SPILLS.
Other Precautions: KEEP AWAY FROM METALLIC OBJECTS WHICH COULD BRIDGE THE TERMINALS. HANDLE CAREFULLY AND AVOID TIPPING WHICH MAY ALLOW ELECTROLYTE LEAKAGE. SINGLE BATTERY POSE NO RISK OF ELECTRIC SHOCK BUT THERE MAY BE INCREASING RISK OF ELECTRIC SHOCK FROM STRINGS OF CONNECTED BATTERIES EXCEEDING THREE 12-VOLT UNITS .

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

Respiratory Protection: NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATIONS OF SULFURIC 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

CID-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. EMERGENCY EYEWASH STATIONS AND SHOWERS SHOULD BE PROVIDED,
WITH UNLIMITED WATER.

Work Hygienic Practices:HANDLE BATTERIES CAUTIOUSLY, DO NOT TIP TO
AVOID SPILLS. MAKE SURE VENT CAPS ARE ON SECURELY. AVOID CONTACT
WITH INTERNAL COMPONENTS.

TS. WEAR PROTECTIVE CLOTHING, EYE AND FACE
PROTECTION WHEN FILLING.

Supplemental Safety and Health

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

HCC:Z4

NRC/State Lic Num:NOT RELEVANT.

Boiling Pt:B.P. Text:203F-240F(FOR S.G.RANG

Melt/Freeze Pt:M.P/F.P Text:NOT APPLICABLE.

Decomp Temp:Decomp Text:NOT PROVIDED.

Vapor Pres:17-11 @77F

Vapor Density:>1

Spec Gravity:1.230-1.350

pH:NOT PROVIDED.

Viscosity:NOT PROVIDED.

Evaporation Rate & Reference:~500 LBS, LEAD >=10000 L

BS. (E) SUPPLIER

NOTIFICATION: CONTAINS TOXIC CHEMICALS REPORTABLE UNDER EPCRA SECT
ION 313:PB, H2SO4,SB, AS.

Federal Regulatory Information:RCRA: SPENT LEAD-ACID BATTERIES ARE NOT
REGULATED AS HAZARDOUS WASTE WHEN RECYCLED. SPILLED SULFURIC ACID
IS A CHARACTERISTIC HAZARDOUS WASTE; EPA HAZARDOUS WASTE NUMBER
D002 (CORROSIVITY). TSCA: INGR EDIENTS IN EXIDE'S BATTERIES ARE
LISTED IN THE TSCA REGISTRY AS FOLLOWS: SULFURIC ACID, LEAD, LEAD
OXIDE, LEAD SULFATE, ANTIMONY,

ARSENIC, CALCIUM, TIN

State Regulatory Information:CALIFORNIA PROPOSITION 65: WARNING: THIS
PRODUCT CONTAINS LEAD, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA
TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever

ever,

expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.