

EXIDE CORP -- LEAD-ACID BATTERY (SEE SUPPL) -- 6140-01-418-7795

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

Product ID:LEAD-ACID BATTERY (SEE SUPPL)

MSDS Date:06/01/1999

FSC:6140

NIIN:01-418-7795

Status Code:A

MSDS Number: CLCWQ

=== 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 Phon

e Num:(800)424-9300

Preparer's Name:NOT PROVIDED

Chemtrec Ind/Phone:(800)424-9300

CAGE:20038

=== Contractor Identification ===

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

Company Name:PROTRONICS CORP

Address:2411 11TH AVE S

Box:City:GREAT FALLS

State:MT

ZIP:59405

Country:US

Phone:888-452-9589/FAX: 406-452-0089

Contract Num:SP0411-01-M-EJ95

CAGE:06DN1

===== Composition/Information on Ingredi

ents =====

Ingred Name:LEAD  
CAS:7439-92-1  
RTECS #:OF7525000  
= Wt:53.  
Other REC Limits:NIOSH 100 UG;MFR  
OSHA PEL:50 UG/M3  
ACGIH TLV:0.15 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY  
CAS:7440-36-0  
RTECS #:CC4025000  
= Wt:.2  
Other REC Limits:NOT PROVIDED  
OSHA PEL:0.5 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC  
CAS:7440-38-2  
RTECS #:CG0525000  
Fraction by Wt: 0.003%  
Other REC Limits:NOT PROVIDED  
OSHA PEL:10 UG/M3  
ACGIH TLV:0.01 MG  
/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:CALCIUM  
CAS:7440-70-2  
RTECS #:EV8040000  
= Wt:.02  
Other REC Limits:NOT PROVIDED  
OSHA PEL:NOT PROVIDED  
ACGIH TLV:NOT PROVIDED

Ingred Name:TIN  
CAS:7440-31-5  
RTECS #:XP7320000  
= Wt:.06  
Other REC Limits:NOT PROVIDED  
OSHA PEL:2000 UG/M3  
ACGIH TLV:2 MG/M3

Ingred Name:ELECTROLYTE (SULFURIC ACID/WATER/SOLUTION)  
CAS:7664-93-9  
RTECS #:WS5600000  
Minumum % Wt:30.  
Maxumum % Wt:40.  
Other REC Limits:NIOSH 1000 UG/M3  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3  
ACGIH ST

EL:3 MG/M3

Ingred Name:CASE MATERIAL (POLYPROPYLENE, HARD RUBBER)

CAS:9003-07-0

RTECS #:UD1842000

Minumum % Wt:5.

Maxumum % Wt:6.

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

LD50 LC50 Mixture:NOT PROVIDED

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

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

Health Hazards Acute and Chronic:INHALATION: ELECTROLYTE: BREATHING OF SULFURIC ACID VAPORS OR MISTS; SEVERE RESPIRATORY IRRITATION. LEAD COMPOUN

DS: INHALATION OF LEAD DUST OR FUMES CAUSE IRRITATION OF UPPER RESPIRATORY TRACT, LUNGS. INGESTION: ELECTROLYTE: CAUSE SEVERE IRRITATION OF MOUTH, THROAT, ESOPHAGUS AND STOMACH. LEAD COMPOUNDS: ACUTE INGESTION CAUSE ABDOMINAL PAIN, NAUSEA, VOMITING, DIARRHEA AND SEVERE CRAMPING. LEAD RAP IDLY TO SYSTEMIC TOXICITY. SKIN: ELECTROLYTE: SEVERE IRRITATION, BURNS AND ULCERATION. LEAD COMPOUNDS: NOT ABSORBED THROUGH SKIN. EYE: ELECTROLYTE: SEVERE IRRITATION, BURNS, CORNEA D

AMAGE, BLINDNESS. LEAD COMPOUNDS: CAUSE EYE IRRITATION.

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), INTERNATI ONAL AGENCY FOR RESEARCH ON CANCER (IARC), OSHA AND NIOSH AS A CARCINOGEN ONLY AFTER PROLONGED EXPOSURE AT HIGH LEVELS.

Effects of Overexposure:ACUTE: ELECTROLYTE: SEVERE SKIN IRRITATION,

DAMAGE TO CORNEA MAY CAUSE BLINDNESS, UPPER RESPIRATORY IRRITATION. LEAD COMPOUNDS: SYMPTOMS OF TOXICITY INCLUDE HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. CHRONIC: ELECTROLYTE: POSSIBLE EROSION OF TOOTH ENAMEL; INFLAMMATION OF NOSE, THROAT AND BRONCHIAL TUBES. LEAD COMPOUNDS: AN EMIA; NEUROPATHY, PARTICULARLY OF THE MOTOR NERVES, WITH WRIST DROP; KIDNEY DAMAGE; REPRODUCTIVE CHANGES IN B

OTH MALES AND FEMALES.

Medical Cond Aggravated by Exposure:SULFURIC ACID MIST: LUNG DAMAGE AND AGGRAVATE PULMONARY CONDITIONS. ELECTROLYTE WITH SKIN; AGGRAVATE SKIN DISEASES; ECZEMA AND CONTACT DERMATITIS. CONTACT EYES: DAMAGE CORNEA OR BLINDNESS.

===== 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 SICI AN. 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 CLOT HING. LEAD: WASH IMMEDIATELY WITH SOAP AND WATER. EYES: FLUSH IMMEDIATELY WITH LARGE AMOUNT OF WATER FOR AT LEAST 15 MI NUTES; CONSULT PHYSI CIAN IMMEDIATELY.

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

Lower Limits:4.1 HYDROGEN

Upper Limits:74.2 (H2)

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 POW ER TO CHARGING EQUIPMENT. STRINGS OF CO NNECTED BATTERES POSE RISK OF ELECT RIC 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 CIGARETE, NAKED FLAME OR SPARK, MAY CAUSE BATTERY EXPLOSION WITH DISPERSIO N OF CASING FRAGMENTS AND CORROSIVE LIQU ID ELECTROLYTE FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND SERVICE.

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

Spill Releas

e 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, ET C. 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, LIME OR 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 TERMINAL

S. 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 ACID-RESISTANT WITH ELBOW GAUNTLET.

Eye Protection:CHEMICAL GOGGLES OR FACE SHIELD.

Other Protective Equipment:IN AREAS WHERE SULFURIC ACID IS HANDLED IN CONCENTRATIONS GREATER THAN 1%, EMERGENCY EYEWASH STATIONS AND SHOWERS SHOULD BE PROVIDED, WITH UNLIMITED WATER SUPPLY.

Work Hygienic Practices:HANDLE BATTERIES CAUTIOUSLY TO AVOID SPILLS.

MAKE CERTAIN VENT CAPS ARE ON SECURELY. AVOID CONTACT WITH INTERNAL COMPONENTS. WEAR PROTECTIVE CLOTHING WHEN FILLING OR HANDLING BATTERIES.

Supplemental Safety and Health

CONTD FROM PRODUCT ID: PROTRONICS/EXIDE PART NUMBER: EXIDE 6TL. LEAD AND ITS COMPOUNDS CAN AGGRAVATE SOME FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES.

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

HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boili

ng Pt:B.P. Text:203F-240F

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor Pres:17 TO 11 @ 77F

Vapor Density:>1

Spec Gravity:1.230-1.350

Evaporation Rate & Reference:~500 LBS, LEAD >=10000 LBS. (E) SUPPLIER  
NOTIFICATION: CONTAINS TOXIC CHEMICALS REPORTABLE UNDER EPCRA SECTION 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 HAZA

RDOUS WASTE

NUMBER D002 (CORROSIVITY). TSCA : INGREDIENTS 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,  
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.