Product ID:LEAD-ACID BATTERY MSDS Date:07/01/1991 FSC:6140 NIIN:00-822-0397 MSDS Number: BRGXM === Responsible Party === Company Name: EXIDE CORP Address:645 PENN ST City:READING State:PA ZIP:19612-4205 Country:US Info Phone Num:215-378-0798 Emergency Phone Num:215-378-0798 CAGE:20038 === Contractor Identificati on === 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 Ingred Name:LEAD (SARA III) CAS:7439-92-1 RTECS #: OF7525000 Fraction by Wt: 60% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.05 MG/M3;1910.1025 ACGIH TLV:0.15 MG/M3;DUST 9293 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB Ingred Name: ANTIMONY (SARA III) CAS:7440-36-0 RTECS #:CC4025000 Fract

ion by Wt: 2% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.5 MG/M3 ACGIH TLV:0.5 MG SB/M3; 9293 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 RECOMMENDED OSHA PEL:0.5 MG/M3 (AS) ACGIH TLV:0.01,A1 MG/M3; 9394 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

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

Ingred Name:TIN CAS:7440-31-5 RTECS #:XP73200 00 Fraction by Wt: 0.2% Other REC Limits:NONE RECOMMENDED OSHA PEL:2 MG/M3 ACGIH TLV:2 MG/M3; 9293

Ingred Name:SULFURIC ACID (SARA III) CAS:7664-93-9 RTECS #:WS5600000 Fraction by Wt: 10-30% Other REC Limits:NONE RECOMMENDED OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3; 9293 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:POLYPROPYLENE CAS:9003-07-0 RTECS #:TR5000000 Fraction by Wt: 5-10% Other REC Limits:NONE RECOMMENDED

LD50

LC50 Mixture:LD50 (ORAL RAT) IS 2140 MG/KG (H2SO4) Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:ACUTE: MAY CAUSE IRRITATION OF RESPIRATORY TRACT, EYES, SKIN OR GI TRACT. MAY CAUSE BURNS OF SKIN, EYES, OR GI TRACT. MAY CAUSE CORNEAL DAMAGE OR BLINDNESS. CHRONIC: TOOTH EROSION, INFLAMMATION OF NOS E, THROAT AND BRONCHIAL TUBES. Explanation of Carcinogenicity:THE ELECTROLYTE IS NOT LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN. Effects of Overexposure:INHALATION: BURNING SENSATION IN NOSE, THROAT AND LUNCS. COUCHING, WHEEZING, SHOPTNESS OF PREATH, EYES; PEDNESS

AND LUNGS, COUGHING, WHEEZING, SHORTNESS OF BREATH. EYES: REDNESS, TEARING, BLURRED VISION, BURNS, SEVERE PAIN. SKIN: SEVERE PAIN, BURNS, REDNESS, RASH, I TCHING. INGESTION: BURNS OF MOUTH, THROAT, AND ESOPHAGUS, SEVERE STOMACH PAIN, NAUSEA, VOMITING.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF AILMENTS OR WITH A PRE-EXISTING DISEASE INVOLVING THE

RESPIRATORY TRACT OR

TEETH MAY BE AT INCREASED RISK FROM EXPOSURE.

First Aid:INHALATION:REMOVE TO FRESH AIR. RESUSCITATE IF NOT BREATHING. GET MEDICAL ATTENTION. EYES:IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES HOLDING EYELIDS OPEN. GET PROMPT MEDICAL ATTENTION. SKIN :REMOVE CONTAMINATED CLOTHING. WASH WITH PLENTY OF WATER FOR 15 MINUTES. GET MEDICAL ADVICE. INGESTION:DO NOT INDUCE VOMITING.

GIVE NOTHING BY MOUTH IF UNCONSCIOUS. GET IMMEDIATE MEDICAL ATTENTION.

Extinguishing Media:USE DRY CHEMICAL, CARBON DIOXIDE, FOAM, HALOGEN.
Fire Fighting Procedures:USE OF WATER IN EXTINGUISHING BURNING BATTERIES MAY CAUSE SPATTERING DUE TO THE PRESENCE OF MOLTEN LEAD. WEAR SCBA AND FULL PROTECTIVE GEAR.
Unusual Fire/Explosion Hazard:AFTER ELECTROLYTE IS ADDED AND BATTERY IS BEING CHARGED, HYDROGEN GAS IS PR
ODUCED. BATTERY MAY EXPLODE IF HYDROGEN GAS TRAPPED INSIDE THE CASE SHOULD IGNITE.

Spill Release Procedures: SHOULD A BATTERY BREAK OPEN, ISOLATE AREA. ELECTROLYTE SHOULD BE ABSORBED WITH A NON-ORGANIC TYPE ABSORBENT SUCH AS DRY SAND OR EARTH. AVOID DILUTION WITH WATER. LEAD SPILLED FROM THE BATTERY SHOULD BE VACUUMED, DO NOT SWEEP OR USE COMPRESSED AIR.

Neutralizing Agent: USE SODA ASH OR BAKING SODA TO NEU

Handling and Storage Precautions: AVOID THE USE OF UNINSULATED TOOLS. IF
 THEY ARE REQUIRED, TAKE CARE NOT TO ELECTRICALLY SHORT THE
 TERMINALS. REMOVE METAL JEWELRY BEFORE SERVICING.
 Other Precautions: UNDER NORMAL CONDITIONS OF USE, EXPOSURE TO LEAD OR

LEAD CONTAINING COMPOUNDS DOES NOT OCCUR. SHOULD A BATTERY BREAK OPEN AND A LEAD SPILL OCCUR, PRECAUTIONS SHOULD BE TAKEN TO PREVENT

LEAD DUST FROM BECOMING AIR BORNE.

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

Respiratory Protection:UNDER NORMAL CONDITIONS OF USE, RESPIRATORY PROTECTION IS NOT REQUIRED. HOWEVER, IF CONDITIONS ARISE THAT REQUIRE THEIR USE, USE ONLY NIOSH/MSHA RESPIRATORS APPROVED FOR DUST, FUME AND MIST.

Ventilation:BATTERY CHARGING AREAS MUST BE ADEQUATELY VENTILATED TO PREVENT HAZARDOUS CONCENTRATIONS OF FLAMMABLE GAS OR ACID MIST. Protective Gloves:RUBBER GLOV

ES APPROVED FOR SULFURIC ACID

Eye Protection: CHEMICAL SPLASH GOGGLES AND FACE SHIELD

Other Protective Equipment: EYE WASH STATION AND SAFETY SHOWER.

INDUSTRIAL-TYPE IMPERVIOUS WORK CLOTHING, BOOTS AND APRON AS REQUIRED.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. Supplemental Safety and Health

RQ FOR CERCLA AND SARA III IS 1000 LBS (ELECTROLYTE). MSDS WRITTEN FOR ELECTROLYE- IT IS THE PRIMA

RY HAZARD DURING NORMAL USE AND

HANDLING. INGREDIENTS FROM A LAUNDRY LIST FROM MFR: POLYPROPYLENE IS M OST LIKELY INGREDIENT FOR CASE. INGREDIENT 1-5 IS ELECTRODE; 6 IS ELECTROLYTE; REST ARE FOR CASE.

HCC:C1 Boiling Pt:B.P. Text:203F,95C Vapor Pres:10 Vapor Density:>1 Spec Gravity:1.23-1.35 pH:1 Evaporation Rate & amp; Reference: