Product ID:LEAD-ACID BATTERY MSDS Date:05/01/1991 FSC:6140 NIIN:01-031-6881 MSDS Number: BLVBT === Responsible Party === Company Name: EXIDE CORP Address:645 PENN ST Box:14205 City:READING State:PA ZIP:19612-4205 Country:US Info Phone Num:215-378-0757 Emergency Phone Num:215-378-0798 CAGE:20038 === Contractor Id entification === 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: EXIDE CORP (319-378-0789) Address: GRANT ST RR 1 Box:UNKNOW City:MANCHESTER State:PA ZIP:52057 Country:US Phone:319-927-4501/FAX 319-927-5701 CAGE:0RML3 Company Name: EXIDE CORP.-GENERAL BATTERY CORP Address:645 PENN STREET Box:City:READING State:PA ZIP:19601 Country:US Phone:215-378-0527/800-424-9300(CHEMTREC) CAGE:08163

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Ingred Name:LEAD (SARA III) CAS:7439-92-1 RTECS #: OF7525000 Fraction by Wt: 60% Other REC Limits:NONE SPECIFIED OSHA PEL:0.05 MG/M3;1910.1025 ACGIH TLV:0.15 MG/M3;DUST 9192 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB Ingred Name: ANTIMONY (SARA III) CAS:7440-36-0 RTECS #:CC4025000 Fraction by Wt: 2.0% Other REC Limits:NONE SPECIFIED OSHA PEL:0.5 MG/M3 ACGIH TLV:0.5 MG SB/M3; 9192 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS Ingred Name: ARSEN IC (SARA III) CAS:7440-38-2 RTECS #:CG0525000 Fraction by Wt: 0.2% Other REC Limits:NONE SPECIFIED 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, METAL

CAS:7440-70-2 RTECS #:EV8040000 Fraction by Wt: 0.2% Other REC Limits:NONE SPECIFIED

Ingred Name:TIN CAS:7440-31-5 RTECS #:XP7320000 Fraction by Wt: 0.2% Other REC Limits:NONE SPECIFIED OSHA PEL:2 MG/M3 ACGIH TLV:2 MG/M3; 9192

Ingred Name:SULFURIC ACID (SARA III) CAS:7664-93-9 RTE CS #:WS5600000 Fraction by Wt: 10-30% Other REC Limits:NONE SPECIFIED OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3; 9192 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS Ingred Name:NO HAZARD- CASE MATERIAL- POLYPROPYLENE, POLYSTYRENE STYRENE ACRYLONITRILE, ACRYLONITRILE BUTADIENE STYRENE, ETC. Fraction by Wt: 5-10% Other REC Limits:NONE SPECIFIED Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic: BREATHING OF SULFURIC ACID VAPORS MAY CAUSE SEVERE RESPIRATORY IRRITATION. INGESTION MAY CAUSE SEVERE IRRITATION OF MOUTH, THROAT, ESOPHAGUS AND STOMACH. SEVERE IRRITATION, BURNS TO THE SKIN AND EYES AND CORNEA DAMAGE AND BLINDNESS TO THE EYES. PROLONGED EXPOSURE CAN CAUSE EROSION OF TOOTH ENAMEL, INFLAMMATION OF URT. Explanation of Carcinogenicity: LEAD LIKELY IN ANIMALS AT EXTREME DOSES. ARSENIC LISTED AS HUMAN CARCINO GEN BY NTP, IARC, OSHA AT HIGH EXPOSURE ONLY. Effects of Overexposure: ACUTE; SULFURIC ACID: SEVERE SKIN IRRITATION, DAMAGE TO CORNEA, UPPER RESPIRATORY IRRITATION. LEAD: HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. CHRONIC: EROSION OF TOOTH ENAMEL, INFLAMMATION OF NOSE, THROAT, BRONCHIAL TUBES, ANEMIA, NEUROPATHY. Medical Cond Aggravated by Exposure:OVEREXPOSURE TO SULFURIC ACID MIST MAY CAUSE LUNG DAMAGE AND AGGRAVATE PULMONARY CONDITIONS. CONTACT ON SKIN MAY AGGRAVATE SKIN DISEASES SUCH AS ECZEMA AND CONTACT DERMATITIS.

First Aid:INHALATION: LEAD- REMOVE FROM EXPOSURE, GARGLE, WASH NOSE AND LIPS; CONSULT PHYSICIAN. SULFURIC: REMOVE FOR FRESH AIR IMMEDIATELY. INGES: LEAD- CONSULT PHYSICIAN. SULFURIC- GIVE LARGE QUANTITIES OF WA TER; DO NOT INDUCE VOMITING; CONSULT PHYSICIAN. SKIN: FLUSH WIT H LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES; REMOVE CONTAMINATED CLOTHING COMPLETELY, INCLUDING SHOES. EYES: FLUSH IMMEDIATELY.

Lower Limits: 4.1 (H2)

Upper Limits:74.2
Extinguishing Media:USE HALOGEN, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.
Fire Fighting Procedures:WEAR SELF CONTAINED BREATHING APPARATUS. WEAR ACID-RESISTANT CLOTHING. IF BATTERIES ARE ON CHARGE, SHUT OFF POWER. WATER APPLIED TO ELECTROLYTE
HEATS/SPATTERS.
Unusual Fire/Explosion Hazard:HIGHLY FLAMMABLE HYDROGEN GAS IS GENERATED DURING CHARGING AND OPERATION OF BATTERIES. AVOID SPARKS OR OTHER SOURCES OF IGNITION.

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ABSORB SMALL
 SPILLS WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE
 MATERIALS. CAREFULLY NEUTRALIZE WITH SODA ASH, SODIUM BICARBONATE,
 LIME, ETC. DO NOT ALLOW DISCHAR
 GE OF UNNEUTRALIZED ACID TO SEWER.
 Neutralizing Agent:SODA ASH, SODIUM BICARBONATE, LIME, ETC.

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA WITH IMPERVIOUS SURFACES AND ADEQUATE CONTAINEMENT FOR SPILLS. AVOID DAMAGE TO CONTAINERS.

Other Precautions: KEEP AWAY FROM FIRE, SPARKS AND HEAT. SEPARATE FROM INCOMPATIBLE MATERIALS. BATTERIES SHOULD BE STORED UNDER ROOF FOR PROTECTION AGAIN

ST ADVERSE WEATHER CONDITIONS. SEND SPENT BATTERIES TO A SECONDARY LEAD SMELTER FOR RECYCLING.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATIONS OF SLUFURIC ACID MIST ARE KNOWN TO EXCEED PEL, USE NIOSH OR NSHA-APPROVED RESPIRATORY PROTECTION. Ventilation:STORE AND HANDLE IN WELL-VENTILATED AREA. IF MECHANICAL VENTILATION IS USED, COMPONENTS MUST BE ACID-RESISTANT. Protective Glo ves:RUBBER OR PLASTIC ACID-RESISTANT.
Eye Protection:CHEMICAL GOGGLES OR FACE SHIELD
Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER.
ACID-RESISTANT APRON, AND UNDER SEVERE CONDITIONS, ACID-RESISTANT CLOTHING AND BOOTS
Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.
Supplemental Safety and Health
AVOID PROLONGED OR REPEATED EXPOSURE. DO NOT GET ON SKIN OR IN EYES. DO NOT B

REATHE VAPORS OR MISTS.

HCC:C1 Boiling Pt:B.P. Text:203F,95C Vapor Pres:10 Vapor Density:>1 Spec Gravity:1.230-1.350 Evaporation Rate & amp; Reference: