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 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: 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

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:ARSENIC (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 RTECS #:WS5600000 Fraction by Wt: 10-30% Other REC Limits:NONE SPECI FIED 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 CARCINOGEN BY NTP, IARC, OSHA AT HIGH EXPOSURE ONLY.

Effects of Over

exposure: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 SK

IN 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 WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES; REMOVE CONT AMINATED 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 H YDROGEN 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 DISCHARGE OF UNNEUTRALIZED ACID TO SEWER. Neutralizing Agent:SODA ASH, S ODIUM 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 AGAINST ADVERSE WEATHER CONDITIONS. SEND SPENT BATTERIES TO A SECO

NDARY 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 Gloves:RUBBER OR PLASTIC ACID-RESISTANT. Eye Protection:CHEMICAL GOG GLES 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 BREATHE VAPORS OR MISTS.

======= Physical/Chemical Pr

operties ==============

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: