EXIDE CORP.-GENERAL BATTERY CORP -- LEAD-ACID BATTERY -- 6140-00-438-0299
========== Product Identification ==========

Product ID:LEAD-ACID BATTERY
MSDS Date:05/01/1991
FSC:6140
NIIN:00-438-0299
MSDS Number: BXXKC
=== Responsible Party ===
Company Name:EXIDE CORP.-GENERAL BATTERY CORP
Address:645 PENN STREET
City:READING
State:PA
ZIP:19601
Country:US
Info Phone Num:215-378-0527
Emergency Phone Num:215-378-0527/800-424-9300(CHEMTREC)
CAGE:08163
=== Contractor Identificat
ion ===
Company Name:ARJAY ELECTRONICS CORP
Address:525 W CHESTER PIKE SUITE 314
Box:City:HAVERTOWN
State:PA
ZIP:19083-4539
Country:US
Phone:215-449-3600
CAGE:64812
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

========== Composition/Information on Ingredients ==========

Ingred Name:LEAD
CAS:7439-92-1
RTECS #:OF7525000
Fraction by Wt: 60%
Other REC Limits:NONE REC

OMMENDED
OSHA PEL:0.05 MG/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
Fraction by Wt: 2%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:500 UG/M3
ACGIH TLV:500 UG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC
CAS:7440-38-2
RTECS #:CG0525000
Fraction by Wt: 0.2%
Other REC Limits:NONE RECOMMENDED
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 Li
mits:NONE RECOMMENDED

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

Ingred Name:SULFURIC ACID
CAS:7664-93-9
RTECS #:WS5600000
Fraction by Wt: 10-30%
Other REC Limits:NONE RECOMMENDED
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:CASE MATERIAL
Fraction by Wt: 5-10%
Other REC Limits:NONE RECOMMENDED

Ingred Name:SILICON DIOXIDE
CAS:60676-86-0
Fraction by Wt: 10%
Other REC Limits:NONE RECOMMENDED

Ingred Name:SHEET MOLDING COMPOUND
Fraction by Wt: 10%
Other REC Limits:NONE RECOMMENDED

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:CONTACT WITH SULFURIC ACID MAY LEAD TO EYE, SKIN & RESPIRATORY TRACT IRRITATION, CORNEAL & LUNG DAMAGE. CHRONIC- LEAD MAY CAUSE ANEMIA, KIDNEY & NERVOUS SYSTEM DAMAGE. ACID CAN CA
USE BRONCHITIS, EROSI ON OF TOOTH ENAMEL.
Explanation of Carcinogenicity:CONTAINS I A [7440-38-2] WHICH IS LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.
Effects of Overexposure:LEAD MAY CAUSE GI UPSET, LOSS OF APPETITE, DIARRHEA, CONSTIPATION, CRAMPING, LACK OF SLEEP & FATIGUE. CONTACT WITH SULFURIC ACID MAY LEAD TO EYE, SKIN & RESPIRATORY TRACT IRRITATION, CORNEAL & LUNG DA MAGE.
Medical Cond Aggravated by Exposure:INORGANIC LEAD AND ITS COMPOUNDS CAN
AGGRAVATE CHRONIC FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES. CONTACT OF SULFURIC ACID WITH THE SKIN MAY AGGRAVATE SKIN DISEASES SUCH AS ECZEMA AND DERMATITIS.

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

First Aid:EYES-IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. CONSULT PHYSICIAN. SKIN-REMOVE CONTAMINATED CLOTHES. FLUSH WITH WATER. INHALED-REMOVE TO FRESH AIR. ADMINISTER OXYGEN IF BREATHING DIFFICULT. INGESTED -IF CONSCIOUS, GIVE LARGE QUANTIT
IES OFWATER.
DO NOT INDUCE VOMITING! CONSULT PHYSICIAN.

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

Flash Point:NON-FLAMMABLE
Lower Limits:4.1% (H2)
Upper Limits:74.2% (H2)
Extinguishing Media:CARBON DIOXIDE, FOAM, HALOGEN, DRY CHEMICAL. WATER SPRAY MAY BE USED TO COOL FIRE-EXPOSED CONTAINER & DECREASE VAPORS.
Fire Fighting Procedures:IF BATTERIES ARE ON CHARGE, SHUT OFF POWER. WATER APPLIED TO ELECTROLYTE GENERATES HEAT AND CAUSES IT TO SPATTER. WEAR A

CID RESISTANT CLOTHING.
Unusual Fire/Explosion Hazard:HYDROGEN GAS IS PRODUCED IN THE CELLS DURING BATTERY OPERATION OR CHARGING. TO AVOID RISK OF FIRE OR EXPLOSION, KEEP SPARKS OR OTHER SOURCES OF IGNITION AWAY.

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

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ABSORB SMALL SPILLS WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. IF POSSIBLE, CAREFULLY NEUTRALIZE SPILLED ELECTROLYTE

WITH SODA ASH, SODIUM BICA RBONATE, LIME.
Neutralizing Agent:SODA ASH (SODIUM CARBONATE), QUICKLIME (CALCIUM OXIDE)

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

Handling and Storage Precautions:STORE BATTERIES IN COOL, DRY, WELL-VENTILATED AREAS WITH IMPERVIOUS SURFACES AND ADEQUATE CONTAINMENT IN EVENT OF SPILLS.
Other Precautions:BATTERIES SHOULD ALSO BE STORED UNDER ROOF FOR PROTECTION AGAINST ADVERSE WEATHER CONDITIONS. KEEP AWAY FROM FIRE, SPA
RKS AND HEAT.

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

Respiratory Protection:NOT REQUIRED UNDER NORMAL USE. WHEN CONCENTRATIONS OF SULFURIC ACID MIST ARE KNOWN TO EXCEED PEL, USE NIOSH OR MSHA-APPROVED RESPIRATORY PROTECTION.
Ventilation:ADEQUATE GENERAL VENTILATION
Protective Gloves:RUBBER WITH ELBOW-LENGTH GAUNTLET
Eye Protection:SPLASH-PROOF CHEMICAL GOGGLES
Other Protective Equipment:RUBBER APRON AND BOOTS. EYES WASH STATION AND SAFETY SHOWER. USE AC
ID-PROOF CLOTHING FOR MAJOR SPILLS.
Work Hygienic Practices:REMOVE METALLIC JEWELRY-SHOCK POTENTIAL. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING AND DRINKING.
Supplemental Safety and Health
SEPARATE FROM INCOMPATIBLE MATERIALS.

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

HCC:N1
Boiling Pt:B.P. Text:203F,95C
Vapor Pres:10
Vapor Density:>1
Spec Gravity:1.230 - 1.350
Evaporation Rate & Reference: