YUASA-EXIDE INC -- LEAD-ACID BATTERY,NP 1.2-12 -- 6140-01-371-0520
========== Product Identification ==========

Product ID:LEAD-ACID BATTERY,NP 1.2-12
MSDS Date:06/01/1996
FSC:6140
NIIN:01-371-0520
MSDS Number: CFKTT
=== Responsible Party ===
Company Name:YUASA-EXIDE INC
Address:645 PENN ST
Box:14205
City:READING
State:PA
ZIP:19612-4205
Country:US
Info Phone Num:610-208-1975
Emergency Phone Num:610-208-1975

CAGE:IO592
=== Contractor Identification ===
Company Name:YUASA-EXIDE INC
Address:2366 BERNVILLE ROAD
Box:14145
City:READING
State:PA
ZIP:19612-4145
Country:US
Phone:610-208-1975
CAGE:77280
Company Name:YUASA-EXIDE INC
Address:645 PENN ST
Box:14145
City:READING
State:PA
ZIP:19612
Country:US
Phone:610-208-1975
CAGE:IO592
Company Name:YUASA-EXIDE,INC.
Address:645 PENN ST.
Box:City:READING
State:PA
ZIP:19601
Country:US
Phone:215-371-0400
CAGE:0W0V7

========== Composition/Information on Ingred

ients ==========

Ingred Name:LEAD (SARA 313) (CERCLA)
CAS:7439-92-1
RTECS #:OF7525000
Fraction by Wt: 60%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:SEE 1910.1025
ACGIH TLV:0.05MG/M3, A3; 9596
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY (SARA 313) (CERCLA)
CAS:7440-36-0
RTECS #:CC4025000
Fraction by Wt: 2%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.5 MG/M3
ACGIH TLV:0.5 MG (SB)/M3; 9596
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA 313) (CERCLA)
CAS:7440
-38-2
RTECS #:CG0525000
Fraction by Wt: 0.2%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:SEE 1910.1018
ACGIH TLV:0.01 MG/M3, A1; 9596
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 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; 9596

Ingred Name:SULFURIC ACID (SARA 302/313) (CERCLA)/ELECTROLYTE
CAS:7664-9

3-9
RTECS #:WS5600000
Fraction by Wt: 10 - 30%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3/3 STEL; 9596
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:CASE MATERIAL (POLYPROPYLENE, POLYSTYRENE, STYRENE
ACRYLONITRILE, STYRENE BUTADIENE, POLYCARBONATE, HARD RUBBER ETC.)
Fraction by Wt: 5 - 10%
Other REC Limits:NONE RECOMMENDED

Ingred Name:SILICONE DIOXIDE (GEL CELL BATTERIES ONLY)/SILICA,
CRYSTALLINE - FUSED
CAS:60676-86-0
RTECS #:VV7328000
Fraction by Wt:
10%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:SEE TABLE Z-3
ACGIH TLV:0.1 MG/M3 RDUST;9596

Ingred Name:SHEET MOLDING COMPOUND (GLASS-REINFORCED POLYESTER)
Fraction by Wt: 10%
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) IS NOT RELEVANT.
Routes of Entry: Inhalation:NO Skin:NO Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:TARGET ORGANS:EYE, S
KIN, CNS, LUNG, GI
TRACT. ACUTE- LEAD MAY CAUSE GI UPSET & FATIGUE. ACID MAY CAUSE
EYE, SKIN, MOUTH, THROAT, STOMACH & RESPIRATORY TRACT IRRITATION,
BURNS, CORNEAL & LUNG DAMAGE. C HRONIC- LEAD MAY CAUSE ANEMIA,
KIDNEY &NERVOUS SYSTEM DAMAGE. ACID CAN CAUSE BRONCHITIS, EROSION
OF TOOTH ENAMEL.
Explanation of Carcinogenicity:CONTAINS ARSENIC WHICH IS LISTED BY NTP
AND IARC AND REGULATED BY OSHA AS A CARCINOGEN. ALSO CONTAINS LEAD.
Effects of Overexposure:GI UPSET, LOSS OF

APPETITE, DIARRHEA,
CONSTIPATION, CRAMPING, LACK OF SLEEP, FATIGUE, SEVERE IRRITATION, BURNS, CORNEAL AND LUNG DAMAGE, BLINDNESS, IRRITABILITY, ULCERATION
Medical Cond Aggravated by Exposure:LEAD AND ITS COMPOUNDS CAN AGGRAVATE CHRONIC FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES. CONTACT OF SULFURIC ACID WITH SKIN MAY AGGRAVATE DISEASES SUCH AS ECZEMA. ACID MIST AGGRAVATES LUNG DISEASE

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

First Aid:OBTAIN
MEDICAL ATTENTION IMMEDIATELY IN ALL CASES OF EXPOSURE. EYES/SKIN:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. KEEP EYELIDS OPEN. INHALATION:MOVE TO FRESH AIR. INGESTION:DO NOT INDUCE VOMITING. IF CONSCIOUS, DRINK LARGE AMOUNT OF WATER.

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

Flash Point:NON-FLAMMABLE
Lower Limits:4.1% (H2)
Upper Limits:74.2% (H2)
Extinguishing Media:USE CARBON DIOXIDE, SAND, HALON/DRY CHEMICAL. WATER APPLIED TO ELECTROLYTE GENERAT
ES HEAT AND CAUSES IT TO SPATTER.
Fire Fighting Procedures:WEAR ACID-RESISTANT CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.
Unusual Fire/Explosion Hazard:BATTERY CELLS MAY RUPTURE WHEN EXPOSED TO EXCESSIVE HEAT. THIS COULD RESULT IN RELEASE OF CORROSIVE MATERIALS. HYDROGEN GAS, IF PRESENT, IS EXPLOSIVE/FLAMMABLE.

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

Spill Release Procedu
res:WEAR PROTECTIVE EQUIPMENTS. REMOVE COMBUSTIBLES & IGNITION SOURCES (H2 MAY BE PRESENT). CONTAIN BY DIKING AND COVER SPILL WITH SODA ASH OR QUICKLIME. MIX WELL. CHECK THAT MIXTURE IS NEUTRAL. COLLECT A ND PLACE IN A DRUM. DO NOT FLUSH TO SEWER.
Neutralizing Agent:SODA ASH (SODIUM CARBONATE), QUICKLIME (CALCIUM OXIDE)

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

Handling and Storage Precautions:STORE NEAR EYEWASH FOUNTAIN AND SAFETY SHOWER. STOR

AGE AREA SHOULD BE EQUIPPED WITH A DRAIN WHICH CAPTURES SPILLS OF ACID FOR PROPER DISPOSAL.
Other Precautions:KEEP TERMINALS COVERED. AVOID SHORTING BATTERIES. KEEP LIGHTED CIGARETTES, SPARKS, AND FLAMES AWAY FROM CHARGING BATTERIES. KEEP OUT OF REACH OF CHILDREN. STORE AWAY FROM INCOMPATIBLE MATERIALS. STORE IN AREA WITH ADEQUATE WATER SUPPLY.

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

Respiratory Protection:NOT REQUIRED UNDER NORMAL USE. USE NIOS
H-APPROVED ACID-MIST FILTER RESPIRATOR IF 1 MG/M3 TWA IS EXCEEDED (ACID).
Ventilation:ADEQUATE GENERAL VENTILATION. IF MECHANICAL VENTILATION IS USED, COMPONENTS MUST BE ACID-RESISTANT.
Protective Gloves:RUBBER OR PLASTIC
Eye Protection:SPLASH-PROOF CHEMICAL GOGGLES/FACESHIELD
Other Protective Equipment:RUBBER APRON AND BOOTS. EYES WASH STATION AND SAFETY SHOWER. USE ACID-PROOF CLOTHING FOR MAJOR SPILLS.
Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMM
ENDED PROCEDURES. WASH AFTER HANDLING AND BEFORE EATING OR DRINKING.
Supplemental Safety and Health

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

HCC:C1
NRC/State Lic Num:NOT RELEVANT
Spec Gravity:1.215-1.35 ACID
Viscosity:NOT RELEVANT
Evaporation Rate & Reference:NOT RELEVANT
Solubility in Water:NOT RELEVENT
Appearance and Odor:SEALED, BATTERY CONTAINING SULFURIC ACID AND LEAD.

========== Stability and Reactivity Data ==========

Stability Indic
ator/Materials to Avoid:YES
SOLVENTS THAT DISSOLVE BATTERY CASE MATERIAL, ORGANIC MATERIALS, STRONG REDUCING AGENTS, METALS, WATER, STRONG OXIDIZERS
Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES, OVERCHARGING, SMOKING, SPARKS
Hazardous Decomposition Products:LEAD OXIDE, HYDROGEN, SULFUR DIOXIDE, SULFUR TRIOXIDE, CARBON MONOXIDE, METAL FUME, VAPOR OR DUST, TOXIC ARSINE GAS

========== Disposal Considerations ==========

Waste Disposal Methods:DISPOSE AS

HAZARDOUS WASTE. OBSERVE ALL FEDERAL,
STATE AND LOCAL ENVIRONMENTAL REGULATIONS FOR ACID OR LEAD SCRAP.
SEND BATTERIES TO LEAD SMELTER FOR RECLAMATION FOLLOWING APPLICABLE
FEDERAL, STATE AN D LOCAL REGULATIONS.