

YUASA-EXIDE CORP -- LEAD-ACID BATTERY -- 6140-01-324-1958

=====
Product Identification
=====

Product ID:LEAD-ACID BATTERY

MSDS Date:09/01/1993

FSC:6140

NIIN:01-324-1958

MSDS Number: BTRRV

=== Responsible Party ===

Company Name:YUASA-EXIDE CORP

Address:645 PENN STREET

City:READING

State:PA

ZIP:19612-4205

Country:US

Info Phone Num:215-378-0798

Emergency Phone Num:215-378-0500/800-424-9300(CHEMTREC)

CAGE:KO888

=== 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:YUASA-EXIDE CORP

Address:645 PENN STREET

Box:City:READING (FORMALLY IN HORSHAM)

State:PA

ZIP:19612-4205

Country:US

Phone:610-378-0550/ FAX -0616

CAGE:KO888

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

Ingred Name:LEAD (SARA III)

CAS:7439-92-1

RTECS #:OF7525000

Fraction by

Wt: 60%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:SEE 1910.1025
ACGIH TLV:0.15 MG/M3,DUST;9394
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%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.5 MG/M3
ACGIH TLV:0.5 MG (SB)/M3; 9394
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:SEE 1910.1018
ACGIH TLV:0.01
MG/M3, A1; 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 #:XP7320000
Fraction by Wt: 0.2%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:2 MG/M3
ACGIH TLV:2 MG/M3; 9394

Ingred Name:SULFURIC ACID (SARA III) (ELECTROLYTE)
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; 9394
EPA Rpt Qty:10

00 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:PROPENE POLYMERS (POLYPROPPYLENE)
CAS:9003-07-4
RTECS #:UD1842000
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:POLYSTYRENE
CAS:9003-53-6
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:STYRENE ACRYLONITRILE
CAS:9003-54-7
RTECS #:AT6978000
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:ACRYLONITRILE BUTADIENE STYRENE
CAS:9003-56-9
RTECS #:AT6970000
Fraction by Wt: SEE #16%
Other RE
C Limits:NONE RECOMMENDED

Ingred Name:STYRENE BUTADIENE
CAS:9003-55-8
RTECS #:WL6478000
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:POLYVINYL CHLORIDE
CAS:9002-86-2
RTECS #:KV0350000
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:POLYCARBONATE
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:HARD RUBBER
Fraction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:POLYETHYLENE
CAS:9002-88-4
RTECS #:TQ3325000
F

raction by Wt: SEE #16%
Other REC Limits:NONE RECOMMENDED

Ingred Name:CASE MATERIAL, TOTAL OF INGREDIENTS #7 THRU 15.
Fraction by Wt: 5-10%
Other REC Limits:NONE RECOMMENDED

Ingred Name:SILICON DIOXIDE (GEL BATTERIES ONLY) (SEE INGRED #19)
CAS:60676-86-0
RTECS #:VV7328000
Fraction by Wt: 10%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:10 MG/M3 RDUST; Z-3
ACGIH TLV:0.1 MG/M3 RDUST;9394

Ingred Name:SHEET MOLDING COMPOUND (GLASS-REINFORCED POLYESTER) (SEE
INGRED #19)
Fraction by Wt: 10%
Other
REC Limits:NONE RECOMMENDED

Ingred Name:OTHER(INORG PB & ELECTROLYTE PRIM CMPNTS OF EVERY BATTERY
MFG BY YUASA-EXIDE.OTHER INGRED MAY BE PRESENT DEPENDS ON TYP)
RTECS #:9999999ZZ
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:NOT KNOWN
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:H2SO4:INHAL:SEVER RESP
IRRIT.I
NGEST:IRRIT MOUTH/THROAT/ESOPHAGUS/STOMACH.SKIN/EYE:SEVE
IRRIT,BURNS,ULCERATION,BURNS,CORNEA DAMAGE,BLINDNESS.PB
CMPDS:INHAL:IRRIT UPPER RESP TRACT & LUNGS.INGEST:SYS TOXIC
ITY.EYE:IRRIT.CHRONIC:TOOTH ENAMEL,INFLAMM OF NOSE/THROAT/BRONCHIAL
TUBES.ANEMIA,NEUROPATHY(MOTOR NERVES)KID/REPROD DAMA
Explanation of Carcinogenicity:PER MSDS:H2SO4 MIST FROM MISUSE OF
PRODUCT. LEAD CMPDS. ARSENIC.
Effects of Overexposure:SKIN IRRIT, DAMAGE TO CORNEA, UPPER RESP IRRIT.
SYMPTOMS OF TOXI

CITY OF LEAD CMPDS WHEN PRODUCT HEATED, OXIDIZED OR OTHERWISE PROCESSED OR DAMAGED TO CREATE DUST/VAPOR/FUME: HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES & WEAKNESS, SLEEP DISTURBANCES & IRRITABILITY.

Medical Cond Aggravated by Exposure: OVEREXPOSURE TO H₂SO₄ MIST MAY CAUSE LUNG DAM, AGGRAVATE PULM CONDITIONS. H₂SO₄ CONTACT W/SKIN MAY AGGRAVATE SKIN DISEASES (ECZEMA & CONTACT DERM). PB & CMPDS CAN AGGRAVATE SOME FORMS OF KID/LIV/NEURO DIS

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

First Aid: INHAL: ACID: REMOVE TO FRESH AIR IMMED. IF BREATH DIFFI GIVE OXY. PB: GARGLE, WASH NOSE/LIPS. CALL DR. INGEST: ACID: GIVE LG QUANTITIES OF H₂O. DON'T INDUCE VOMIT. CALL DR. SKIN: ACID: FLUSH W/LOTS AMTS OF H₂O FOR @ LEAST 15MINS. REMOVE CONTAMIN CLOTH/SHOE. PB: WASH IMMED W/SOAP & WATER. EYE: ACID/PB: FLUSH IMMED W/LG AMTS OF H₂O FOR @ LEAST 15MINS. SEE DR.

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

Low
er Limits: 4.1 H₂ GAS
Upper Limits: 74.2
Extinguishing Media: CARBON DIOXIDE, FOAM, DRY CHEMICAL.
Fire Fighting Procedures: IF BATTERIES ARE ON CHARGE, SHUT OFF POWER. USE + PRES SCBA. WATER APPLIED TO ELECTROLYTE GENERATES HEAT & CASUES IT TO SPATTER. WEAR ACID-RESISTANT CLOTHING.
Unusual Fire/Explosion Hazard: HIGHLY FLAMM H₂ GAS GENERATED DURING CHARG/OPER OF BATTERY. KEEP SPARKS OR OTHER SOURCES OF IGN AWAY. DON'T ALLOW METALLIC MATLS TO CONTACT -/+ TERMINALS.

===== A
ccidental Release Measures =====

Spill Release Procedures: STOP FLOW. CONTAIN/ABSORB SM SPILLS W/ DRY SAND, EARTH, VERMI. DON'T USE COMBUST MATLS. CAREFULLY NEUTRALIZE ELECTROLYTE W/SODA ASH, SODIUM BICARBONATE, LIME, ETC. WEAR ACID-RESISTANT CLOTH, BOOT, GLOV, FACESHIELD. DON'T ALLOW DISCHARGE OF UNTREATED ACID TO SEWER.
Neutralizing Agent: SODA ASH, SODIUM BICARBONATE, LIME.

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

Handling and Storage Precautions: ST

ORE BATTERIES IN COOL, DRY, WELL-VENTI

AREAS W/IMPERVIOUS SURFACES & ADEQUATE CONTAINMENT IN EVENT OF SPILLS. SEPARATE FROM INCOMP MATLS, SPARKS, HEAT, FIR

Other Precautions: BATTERIES SHOULD ALSO BE STORED UNDER ROOF FOR PROTECTION AGAINST ADVERSE WEATHER CONDITIONS. STORE & HANDLE ONLY IN AREAS W/ADEQUATE H₂O SUPPLY & SPILL CONTROL. AVOID DAMAGE TO CONTAINERS. FOLLOW MFG'S INSTRUCTIONS FOR INSTALLATION & SERVICE.

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

R

Respiratory Protection: NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATION OF H₂SO₄ MIST ARE KNOWN TO EXCEED PEL USE NIOSH OR MSHA APPROVED RESPIRATORY PROTECTION.

Ventilation: STORE & HANDLE IN WELL-VENTILATED AREA. IF MECHANICAL VENTILATION IS USED COMPONENTS MUST BE ACID-RESISTANT.

Protective Gloves: RUB, PLASTIC ACID RESISTANT W/ELBOW LENGTH

Eye Protection: CHEMICAL GOGGLES OR FACE SHIELD.

Other Protective Equipment: ACID-RESIS APRON. UNDER SEVERE EXPOSURE OR EMERG CONDITIONS W

EAR ACID-RESIS CLOTH/BOOTS. EYEWASH & SHOWERS W/UNLIM H₂O SUP

Work Hygienic Practices: HANDLE CAUTIOUSLY TO AVOID SPILLS. MAKE CERTAIN VENT CAPS ON SECURLEY. AVOID CONTACT W/INTERNAL COMPONENTS.

Supplemental Safety and Health

CONSULT STATE ENVIRONMENTAL AGENCY &/OR FED EPA FOR DISPOSAL. WEAR PROTECTIVE CLOTHING WHEN FILLING OR HANDLING BATTERIES.

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

HCC: C1

Boiling Pt: B.P. Text: 203F, 95C

Vapor Pres: 10

Vapor Density: >1

Spec

Gravity: 1.215-1.350

Evaporation Rate & Reference: