

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

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Product Identification  
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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

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Composition/Information on Ingredients  
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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

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===== 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 ACIDTO 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 H<sub>2</sub>O SUPPLY & SPILL CONTROL. AVOID DAMAGE TO CONTAINERS. FOLLOW MFG'S INSTRUCTIONS FOR INSTALLATION & SERVICE.

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

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Respiratory Protection: NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATION OF H<sub>2</sub>SO<sub>4</sub> 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 H<sub>2</sub>O 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.

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===== 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: