

YUASA - EXIDE INC. -- LEAD-ACID BATTERY -- 6140-01-453-8592

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Product Identification
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Product ID:LEAD-ACID BATTERY

MSDS Date:05/01/1998

FSC:6140

NIIN:01-453-8592

Status Code:A

MSDS Number: CKFCG

=== Responsible Party ===

Company Name:YUASA - EXIDE INC.

Address:2366 BERNVILLE ROAD

Box:14145

City:READING

State:PA

ZIP:19612-4145

Country:US

Info Phone Num:610-208-1975

Emergency Phone Num:610

-208-1975

Chemtrec Ind/Phone:(800)424-9300

CAGE:77280

=== Contractor Identification ===

Company Name:MILPOWER SOURCE INC

Address:BELKNAP INDUSTRIAL PK RR 106

Box:City:BELMONT

State:NH

ZIP:03220

Country:US

Phone:603-267-8865

CAGE:0B7R6

Company Name:SUMMIT ASSOCIATES

Address:10910-H SOUTHLAKE COURT

Box:City:RICHMOND

State:VA

ZIP:23236-3914

Country:US

Phone:804-794-1434

CAGE:9X866

Company Name:YUASA-EXIDE INC

Address:2366 BERNVILLE ROAD

Box:14145

City:READING

State:PA

ZIP:19612-4145

Country:US

Phon

e:610-208-1975
CAGE:77280

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Composition/Information on Ingredients
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Ingred Name:SULFURIC ACID (AS ELECTROLYTE)
CAS:7664-93-9
RTECS #:WS5600000
Minumum % Wt:10.
Maxumum % Wt:30.
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
ACGIH STEL:3 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:LEAD
CAS:7439-92-1
RTECS #:OF7525000
= Wt:60.
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
= Wt:2.
OSHA PEL:0.5 MG/M3
ACG
IH TLV:0.5 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC
CAS:7440-38-2
RTECS #:CG0525000
= Wt:.2
ACGIH TLV:0.01 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:CALCIUM
CAS:7440-70-2
RTECS #:EV8040000
= Wt:.2

Ingred Name:TIN
CAS:7440-31-5
RTECS #:XP7320000
= Wt:.2
ACGIH TLV:2 MG/M3

Ingred Name:POLYPROPYLENE (CASE MATERIAL)
CAS:9003-07-0
RTECS #:UD1842000

Ingred Name:POLYSTYRENE (CASE MATERIAL)
CAS:9003-53-6

R (CASE MATERIAL)

CAS:9003-54-7

RTECS #:AT6978000

Ingred Name:ACRYLONITRILE-BUTADIENE-STYRENE POLYMER (CASE MATERIAL)

CAS:9003-56-9

RTECS #:AT6970000

Ingred Name:STYRENE-BUTADIENE POLYMER (CASE MATERIAL)

CAS:9003-55-8

RTECS #:WL6478000

Ingred Name:POLY(VINYL CHLORIDE) (CASE MATERIAL)

CAS:9002-86-2

RTECS #:KV0350000

Ingred Name:POLYCARBONATE (CASE MATERIAL)

Ingred Name:HARD RUBBER (CASE MATERIAL)

Ingred Name:POLYETHYLENE (CASE MATERIAL)

==== Hazards Identification =====

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LD50 LC50 Mixture:ORAL LD50(RAT):NOT SPECIFIED

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:IHAZARDOUS ONLY IF SEALED CASE IS

BREACHED AND INGREDIENTS CONTACTED. EYES: SULFURIC ACID: SEVERE IRRITATION, BURNS, CORNEA DAMAGE, BLINDNESS. EYES: LEAD: MAY CAUSE IRRITATION. SKIN: SULFURIC ACID: SEVERE IRRITATION, BURNS, ULCERATION. SKIN: LEAD: NOT ABSORBED BY SKIN. I

NHALATION: SULFURIC

ACID: BREATHING VAPORS OR MISTS MAY CAUSE SEVERE RESPIRATORY IRRITATION. INHALATION: LEAD: DUST OR FUMES MAY CAUSE IRRITATION OF UPPER RESPIRATORY TRACT AND LUNGS. INGESTION: SULFURIC ACID: MAY CAUSE SEVERE IRRITATION OF MOUTH, THROAT, ESOPHAGUS, STOMACH. INGESTION: LEAD: ABDOMINAL PAIN, NAUSEA, VOMITING, DIARRHEA, CRAMPING, SYSTEMIC TOXICITY.

Explanation of Carcinogenicity:ARSENIC: LISTED BY NTP, IARC, OSHA, AND NIOSH AS A CARCINOGEN ONLY AFTER P

ROLONGED EXPOSURE AT HIGH LEVELS.

Effects of Overexposure: EYES: IRRITATION, BURNS, CORNEA DAMAGE, BLINDNESS. SKIN: IRRITATION, BURNS, ULCERATION. INHALATION: UPPER RESPIRATORY IRRITATION, LUNG IRRITATION. INGESTION: IRRITATION OF MOUTH, THROAT, ESOPHAGUS, STOMACH, ABDOMINAL PAIN, NAUSEA, VOMITING, DIARRHEA, SEVERE CRAMPING, SYSTEMIC TOXICITY, HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES AND WEAKNESSES, SLEEP DISTURBANCE, IRRITABILITY. CHRONIC: ER

OSION OF TOOTH ENAMEL, ANEMIA, NEUROPATHY, PARTICULARLY OF THE MOTOR NERVES, WITH WRIST DROP, KIDNEY DAMAGE, REPRODUCTIVE CHANGES IN MALE AND FEMALES.

Medical Cond Aggravated by Exposure: SULFURIC ACID: LUNG DAMAGE AND PULMONARY CONDITIONS; ECZEMA AND DERMATITIS. LEAD: KIDNEY, LIVER, AND NEUROLOGIC DISEASES.

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

First Aid: INHALATION: SULFURIC ACID: MOVE TO FRESH AIR; GIVE OXYGEN IF NECESSARY. LEAD: MOVE FROM EXPOSURE, GARGLE, WASH NOSE AND LIPS, CONSULT PHYSICIAN. INGESTION: SULFURIC ACID: GIVE LARGE QUANTITY OF WATER, DO NOT INDUCE VOMITING, CONSULT PHYSICIAN. LEAD: CONSULT PHYSICIAN IMMEDIATELY. SKIN: SULFURIC ACID: FLUSH WITH WATER FOR AT LEAST 15 MINUTES; REMOVE CONTAMINATED CLOTHING AND SHOES. LEAD: WASH WITH SOAP AND WATER. EYES: SULFURIC ACID AND LEAD: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES; CONSULT PHYSICIAN.

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

Lower Limits: 4.1 (H₂ GAS)

Upper Limits: 74.2 (H₂ GAS)

Extinguishing Media: CO₂, FOAM, DRY CHEMICAL.

Fire Fighting Procedures: IF BATTERIES ARE ON CHARGE, SHUT OFF POWER.

USE POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS. WATER APPLIED TO ELECTROLYTE GENERATES HEAT AND CAUSES IT TO SPLATTER. WEAR ACID-RESISTANT CLOTHING.

Unusual Fire/Explosion Hazard: HIGHLY FLAMMABLE HYDROGEN GAS IS

GENERATED DURING CHARGING AND OPERATION OF BATTERIES. TO AVOID

RISK

OF FIRE OR EXPLOSION, KEEP SPARKS OR OTHER SOURCES OF IGNITION AWAY FROM BATTERIES. DO NOT ALLOW MET ALIC MATERIALS TO SIMULTANEOUSLY CONTACT NEGATIVE AND POSITIVE TERMINALS OF CELL AND BATTERIES.

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

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ ABSORB SMALL SPILLS WITH DRY SAND, EARTH AND VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. WEAR ACID RESISTANT CLOTHING, BOOTS, GLOVES AND FACE S

HIELD. DO NOT ALLOW DISCHARGE OF UNNEUTRALIZED ACID TO SEWER.

Neutralizing Agent:SODA ASH, SODIUM BICARBONATE, LIME ETC.

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

Handling and Storage Precautions:STORE BATTERIES IN COOL, DRY, WELL-VENTILATED AREAS WITH IMPERVIOUS SURFACES AND ADEQUATE CONTAINMENT IN THE EVENT OF SPILLS. BATTERIES SHOULD ALSO BE STORED UNDER ROOF FOR PROTECTION AGAINST ADVERSE WEATHER CONDITIONS. SEPERATE FROM INCOMPATIBLE MATERIALS.

Other Precautions:STORE AND HANDLE IN AREAS WITH ADEQUATE WATER SUPPLY AND SPILL CONTROL. AVOID DAMAGE TO CONTAINER. KEEP AWAY FROM SPARKS AND HEAT.PRECAUTIONARY LABELING: POISON- CAUSES SEVERE BURNS. DANGER- CONTAINS SULFURIC ACID.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL CONDITIONS. WHEN CONCENTRATIONS OF SULFURIC ACID MIST ARE KNOWN TO EXCEED PEL, USE NIOSH OR MSHA-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 WITH ELBOW-LENGTH GAUNTLET.

Eye Protection:CHEMICAL GOGGLES OR FACE SHIELD.

Other Protective Equipment:ACID RESISTANT APRON. UNDER SEVERE OR EMERGENCY CONDITIONS, WEAR ACID-RESISTANT CLOTHING AND BOOTS. PROVIDE EYEWASH STATION AND SHOWER WITH UNLIMITED WATER SUPPLY.

Work Hygienic Practices:HANDLE BATTE

RIES CAUTIOUSLY TO AVOID SPILLS.

MAKE CERTAIN VENT CAPS ARE ON SECURELY. AVOID CONTACT WITH INTERNAL COMPONENTS. WEAR PROTECTIVE CLOTHING WHEN FILLING OR HANDLING BATTERIES.

Supplemental Safety and Health

IN AREAS WHERE SULFURIC ACID IS HANDLED IN CONCENTRATIONS GREATER THAN 1%, EMERGENCY EYEWASH STATIONS AND SHOWERS SHOULD BE PROVIDED, WITH AN UNLIMITED SUPPLY OF WATER.

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

HCC:Z4

Boiling Pt:>95.C, 203.F

Vapo

r Pres:10MMHG

Vapor Density:>1

Spec Gravity:1.215 TO 1.350

Evaporation Rate & Reference: