EXIDE CORP -- LEAD-ACID BATTERY -- 6140-01-102-1642

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

Product ID:LEAD-ACID BATTERY
MSDS Date:02/01/1996
FSC:6140
NIIN:01-102-1642
Status Code:A
MSDS Number: CKYZZ
=== Responsible Party ===
Company Name:EXIDE CORP
Address:645 PENN STREET
Box:14205
City:READING
State:PA
ZIP:19612-4205
Country:US
Info Phone Num:610-378-0500/0798
Emergency Phone Num:610-378-0500
Chemtr
ec Ind/Phone:(800)424-9300
CAGE:20038
=== Contractor Identification ===
Company Name:BATTERY OUTLET OF HAMPTON INC
Address:2815 GEORGE WASHINGTON HWY
Box:City:TABB
State:VA
ZIP:23602
Country:US
Phone:804-867-8280
Contract Num:SPO411-01-M-EC08
CAGE:0FTM0
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

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

Ingred Name:INORGANIC COMPOUNDS OF

: LEAD
CAS:7439-92-1
RTECS #:OF7525000
= Wt:53.
Other REC Limits:NIOSH: 100UG/M3
OSHA PEL:50 UG/M3
ACGIH TLV:150 UG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:INORGANIC COMPOUNDS OF: ANTIMONY
CAS:7440-36-0
RTECS #:CC4025000
= Wt:.2
OSHA PEL:500 UG/M3
ACGIH TLV:500 UG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:INORGANIC COMPOUNDS OF: TIN
CAS:7440-31-5
RTECS #:XP7320000
= Wt:.06
OSHA PEL:2000 UG/M3
ACGIH TLV:2000 UG/M3

Ingred Name:INORGANIC COMPOUNDS OF: CALCIUM
CAS:7440-70
-2
RTECS #:EV8040000
= Wt:.02

Ingred Name:INORGANIC COMPOUNDS OF: ARSENIC
CAS:7440-38-2
RTECS #:CG0525000
Fraction by Wt: 0.003%
OSHA PEL:10 UG/M3
ACGIH TLV:2000 UG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:ELECTROLYTE (SULFURIC ACID/WATER/SOLUTION)
CAS:7664-93-9
RTECS #:WS5600000
Minumum % Wt:30.
Maxumum % Wt:40.
Other REC Limits:NIOSH: 1000 UG/M3
OSHA PEL:1000 UG/M3
ACGIH TLV:1000 UG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:CASE MATERIAL: POLYPROPYLENE
CAS:9003-07-0
R

TECS #:UD1842000
Minumum % Wt:5.
Maxumum % Wt:6.

Ingred Name:CASE MATERIAL: HARD RUBBER

Ingred Name:OTHER: SILICON DIOXIDE (GEL CELL BATTERIES ONLY)
CAS:60676-86-0
RTECS #:VV7328000
Minumum % Wt:3.
Maxumum % Wt:5.

========== 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:ACUTE: ELECTROLYTE (WATER AND SULFURIC ACID SOLUTION): SEVERE SKIN IRRITATION, DAMAGE TO CORNEA MAY CAUSE BLINDNESS, UPPER RESPIRATORY IRRITATION. LEAD COMPOUNDS: SYMPTOMS OF TOXICITY INCLUDE HEADACHE , FATIGUE, ABDOMINAL PAIN, LOSS OF APPETITE, MUSCULAR ACHES AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. CHRONIC: ELECTROLYTE (WATER AND SULFURIC ACID SCOLUTION): POSSIBLE EROSION OF TOOTH ENAME L; INFLAMMATION OF NOSE, THROAT AND BRONCHIAL TUBES. LEAD COMPOUNDS: ANEMIA; NEUROPATHY, PARTICULARLY OF THE MOTOR NERVES, WITH WRI
ST DROP;
KIDNEY DAMAGE; REPRODUCTIVE CHANGES IN BOTH MALES AND FEMALE S.
Explanation of Carcinogenicity:THE IARC HAS CLASSIFIED "STRONG INORGANIC ACID MOST CONTAINING SULFURIC ACID" AS A CATEGORY I CARCINOGEN, A SUBSTANCE THAT IS CARCINOGENIC TO HUMAN. LEAD COMPOUNDS - LISTED AS A 2B CARCINOGEN.
Effects of Overexposure:INHALATION: ELECTROLYTE-BREATHING OF SULFURIC ACID VAPORS/MISTS MAY CAUSE SEVERE RESPIREATORY IRRITATION. LEAD-INHALATION OF LEAD DUSTS OR FUMES MAY CAUSE IRRITATION OF UPPER RESPIRATORY TRACT & LUNGS . INGESTION: ELECTROLYTE-MAY CAUSE SEVERE IRRITATION OF MOUTH, THROAT, ESOPHAGUS & STOMACH. LEAD-ACUTE INGESTION MAY CAUSE ABDOMINAL PAIN, NAUSEA, VOMITING, DIARRHEA & SEVERE CRAMPING. THIS MAY LEAD R APIDLY TO SYSTEM TOXICITY. SKIN: ELECTROLYTE-SEVERE IRRITATION, BURNS & ULCERATION. LEAD-NOT ABSORBED THROUGH THE SKIN. EYE-ELECTROLYTE: SEVERE IRRITATION, BURNS, CORNEA DAMAGE, BLINDNESS. LEAD-MAY CA USEE EYE IRRITATION.
Me

dical Cond Aggravated by Exposure:OVEREXPOSURE TO SULFURIC ACID MIST MAY CAUSE LUNG DAMAGE & AGGRAVATE PULMONARY CONDITIONS. CONTACT OF SULFURIC ACID WITH SKIN MAY AGGRIVATE SKIN DISEASES SUCH AS ECZEMA AND CONTACT DERMATITIS.

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

First Aid:INHALATION: ELECTROLYTE-REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING IS DIFFICULT, GIVE OXYGEN. LEAD-REMOVE FROM EXPOSURE, GARGLE, WASH NOSE & LIPS; CONSULT PHYSICIAN. ING
ESTION:
ELECTROLYTE-GIVE LAR GE QUANTITIES OF WATER, DO NOT INDUCE VOMITING; CONSULT PHYSICIAN. LEAD-CONSULT PHYSICIAN IMMEDIATELY. SKIN: ELECTROLYTE-FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES, REMOVE CONTAMINATED CLOTHING COMPLETELY, INLCUDING SHOES. LEAD-WASH IMMEDIATELY WITH SOAP & WATER. EYES: ELECTROLYTE -FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR 15 MINS; CONSULT PHYSICIAN IMMEDIATELY.

========== Fire Fighting Measures ======
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Flash Point:NOT APPLICABLE.
Lower Limits:4.1%
Upper Limits:74..2%
Extinguishing Media:CO2, FOAM; DRY CHEMICAL.
Fire Fighting Procedures:USE POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS. BEWARE OF ACID SPLATTER DURING WATER APPLICATIONS AND WEAR ACID-RESISTANT CLOTHING, GLOVES, FACE AND EYE PROTECTION.IF BATTERIES ARE ON CHARG E, SHUT OFF POWER TO THE CHARGING EQUIPMENT, BUT NOTE THAT BATTERIES STRINGED TOGETHER STILL MAY POSE A RISK.
Unusual Fire/Exp
losion Hazard:IN OPERATION, BATTERIES GENERATE/RELEASE FLAMMABLE HYDROGEN GAS. THEY MUST ALWAYS BE ASSUMED TO CONTAIN THIS GAS WHICH, IF IGNITED BY BURNING CIGARETTE, NAKED FLAME/SPARK, MAY CAUSE BATTERY EXPLOSION WITH DISPERSION OF CASING FRAGMENTS & CORROSIVE LIQUID ELECTROLYTE. CAREFULLY FOLLOW MANUFACTURER INSTALL INSTRUCTION.

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

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ABSORB SMALL SPI

LL WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. IF POSSIBLE, CAREFULLY NEUTRALIZE SPILLED ELECTROLYTE WITH SODA ASH, SODIUM BIC ARBONATE, LIME, ETC. WEAR ACID-RESISTANT CLOTHING, BOOTS, GLOVES, FACE SHEILD. DO NOT ALLOW DISCHARGE OF UNNEUTRALIZED ACID TO SEWER. NEUTRAL ACID MUST BE MANAGED WITH LOCAL, STATE & FEDERAL REGS.

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

Handling and Storage Precautions:STORE BATTERIES UNDER R
OOF IN COOL,
DRY, WELL-VENTILATED AREAS WHICH ARE SEPERATED FROM INCOMPABILE MATERIALS & FROM ACTIVITIES WHICH MAY CREATE FLAMES, SPARKS, OR HEAT. STORE ON SMOOTH, IMPERVIOUS SU RFACES WHICH ARE PROVIDED WITH MEASURES FOR LIQUID CONTAINMENT IN THE EVENT OF ELECTROLYTE SPILLS.
Other Precautions:KEEP AWAY FROM METALLIC OBJECTS WHICH COULD BRIDGE THE TERMINALS ON A BATTERY & CREATE A DANGEROUS SHORT-CIRCUIT. HANDLE CAREFULLY & AVOID TIPPING. SINGLE BATTERIES POSE NO RIS
K OF
ELECTRIC SHOCK BUT IF THERE IS A STRING OF CONNECTED BATTERIES EXCEEDING THREE 12-VOLTS, THE RISK MAY INCREASE.

========== 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 & HANDLE IN WELL-VENTILATED AREA. IF MECHANICAL VENTILATION IS USED, COMPONENTS MUST BE ACID-RE
SISTANT.
Protective Gloves:RUBBER OR PLASTIC ACID-RESISTANT GLOVES WITH ELBOW-LENGTH GAUNTLET.
Eye Protection:CHEMICAL GOGGLES OR FACE SHIELD.
Other Protective Equipment:ACID-RESISTANT APRON. UNDER SEVERE EXPOSURE OR EMERGENCY CONDITIONS, WEAR ACID-RESISTANT CLOTHING, GLOVES & BOOTS.WEAR PROTECTIVE CLOTHING, EYE & FACE PROTECTION, WHEN FILLING/HANDLING BATTERIES.
Work Hygienic Practices:HANDLE BATTERIES CAUTIOUSLY, DO NOT TIP TO AVOID SPILLS. MAKE CERTAIN VENT CAPS ARE ON SEC

URELY. AVOID BODILY
CONTACT WITH INTERNAL COMPONENTS.
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 UNLIMITED WATER SUPPLY. *CHEMICAL/TRADE NAME: LEAD-ACID BATTE RY. CHEMICAL FAMILY/CLASSIFICATION: ELECTRIC STORAGE BATTERY.

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

HCC:Z4
Boiling Pt:B.P. Text:203F-240F
Vapor Pres:17 TO 11 (FOR S.
G. RANGE)
Vapor Density:AIR =1
Spec Gravity:H20 =1
Solubility in Water:100%
Appearance and Odor:A CLEAR LIQUID WITH A SHARP, PENETRATING, PUNGENT ODOR.

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

Stability Indicator/Materials to Avoid:YES
SULFURIC ACID: CONTACT WITH COMBUSTIBLES AND ORGANIC MATERIALS, REDUCING AGENTS, METALS, SULFUR TRIOXIDE GAS, STRONG OXIDIZERS AND WATER. CONTACT WITH METALS MAY PRODUCE TOXIC SULFUR DIOXIDE FUMES AND MAY RELEASE FLAMM
ABLE
Stability Condition to Avoid:PROLONGED OVERCHARGE AT HIGH CURRENT SOURCES OF IGNITION.
Hazardous Decomposition Products:SULFUR TRIOXIDE, CARBON MONOXIDE, SULFIRIC ACID MIST, SULFUR DIOXIDE, HYDROGEN.

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

Waste Disposal Methods:SPENT BATTERIES: SEND TO SECONDARY LEAD SMELTER FOR RECYCLING. ELECTROLYTE: PLACE NEUTRAL SLURRY IN SEALED ACID RESISTANT CONTAINER & DISPOSE OF AS HAZARDOUS WASTE, AS APPLICABLE. L
ARGE WATER-DILUTED SPILL, AFTER NEUTRALISED & TESTED, SHOULD BE MANAGED IN ACCORDANCE WITH APPROVED LOCAL, STATE & FED LAWS.

========== MSDS Transport Information ==========

Transport Information:U.S. DOT: WET (FILLED WITH ELECTROLYTE) BATTERIES ARE REGULATED BY U.S. DOT AS HAZARDOUS MATERIAL. PROPER SHIPPING NAME: BATTERY, WET, FILLED WITH ACID. HAZARD CLASS/DIVISION: 8. ID NUMBER: UN2794. PA CKING GROUP: III. LABEL REQUIRED: CORROSIVE. IF NONSPILLABL

E WET ELECTRIC STORAGE BATTERIES, THE FOLLOWING
INFORMATION WOULD APPLY; PROPER SHIPPING NAME: BATTERIES, WET,
NON-SPILLABLE. HAZARX CLASS/ DIVISION: 8. ID NUMBER: UN2800.
PACKING GROUP: III. LABEL REQUIRED: CORROSIVE.

========== Regulatory Information ==========

SARA Title III Information:CERCLA (SUPERFUND) AND EPCRA: (A) REPORTABLE
QUANTITY (RQ) FOR SPILLED 100% SULFURIC ACID UNDER CERCLA
(SUPERFUND) AND EPCRA (EMERGENCY PLANNING AND COMMUNITY

RIGHT-TO-KNOW ACT) IS 1000 LBS. (B) SULFU RIC ACID IS A LISTED
"EXTREMELY HAZARDOUS SUBSTANCE" UNDER EPCRA, WITH A THRESHOLD
PLANNING QUANTITY (TPQ) OF 1000 LBS. (C) EPCRA SECTION 302
NOTIFICATION IS REQUIRED IF 1000 LBS OR MORE OF SULFURIC A CID IS
PRESENT AT ONE SITE. (D) EPCRA SECTION 312 TIER TWO REPORTING IS
REQUIRED IF ACID IS >=500 LBS, LEAD >=10000 LBS. (E) SUPPLIER
NOTIFICATION: CONTAINS TOXIC CHEMICALS REPORTABLE UNDER EPCRA SECT
ION 313:PB, H2SO4,SB, AS.

Federal Regulatory Information:RCRA: SPENT LEAD-ACID BATTERIES ARE NOT
REGULATED AS HAZARDOUS WASTE WHEN RECYCLED. SPILLED SULFURIC ACID
IS A CHARACTERISTIC HAZARDOUS WASTE; EPA HAZARDOUS WASTE NUMBER
D002 (CORROSIVITY). TSCA: INGR EDIENTS IN EXIDE`S BATTERIES ARE
LISTED IN THE TSCA REGISTRY AS FOLLOWS: SULFURIC ACID, LEAD, LEAD
OXIDE, LEAD SULFATE, ANTIMONY, ARSENIC, CALCIUM, TIN.
State Regulatory Information:CALIFORNIA PROPOSITION 65: WARNING: THIS
PRODUCT CONTAINS L
EAD, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA
TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

========== Other Information ==========

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assume responsibility for the suitability of this information to their
particular situation.