ACCUMULATORENFABRIK SONNENSCHEIN GMBH -- MAINTENANCE FREE BATTERY, VALVE REGULATED BATTERY, SEALED LE -- 6140-01-031-6877
========== Product Identification ==========

Product ID:MAINTENANCE FREE BATTERY, VALVE REGULATED BATTERY, SEALED LE
MSDS Date:09/01/1997
FSC:6140
NIIN:01-031-6877
Status Code:A
MSDS Number: CLNRG
=== Responsible Party ===
Company Name:ACCUMULATORENFABRIK SONNENSCHEIN GMBH
Box:11 80
City:6470 BUEDINGEN HESSEN GERMANY
Country:GE
Info Phone Num:06042-8
1-0
Emergency Phone Num:610-378-0500
Preparer's Name:ENVIRO RES, EXIDE
Chemtrec Ind/Phone:(800)424-9300
CAGE:D7505
=== Contractor Identification ===
Company Name:ACCUMULATORENFABRIK SONNENSCHEIN GMB
Box:City:BUEDINGEN
Country:GR
Phone:06042-81-498
CAGE:D7505
Company Name:BATTERY OUTLET INC
Address:1608 CAMPOSTELLA RD
Box:City:CHESAPEAKE
State:VA
ZIP:23324
Country:US
Phone:757-545-4442
Contract Num:SP0411-02-M-E139
CAGE:0FGN2
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:50.
Other REC Limits:NIOSH 100 UG/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: CALCIUM
CAS:7440-70-2
RTECS #:EV8040000
= Wt:.02

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:ELECTROLYTE (HYDROGEL): SULFURIC ACID (DILUTED SULFURIC ACID IN SOLID STATE, PERCENTAGE ACID: 38.5%; DISTILLED WATER: 61.5%).
CAS:7664-93-9
RTECS #:WS5600000
= Wt:37.
Other REC Limits:NIOSH 1000 UG/M3
OSHA PEL:1000 UG/M3
ACGIH TLV:1000 UG/M3
ACGIH STEL:3 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:ELECTROLYTE (HYDROGEL): SILICON DIOXIDE
CAS:60676-86-0
RTECS #:VV7328000
= Wt:6.

Ingred Name:CASE MATERIAL (ACYLONITRIL BUTAD

IENE STYRENE 9003-56-9 OR
POLYPROYLENE 9003-07-0)
Minumum % Wt:5.
Maxumum % Wt:6.

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:UNKNOWN IARC:YES
Health Hazards Acute and Chronic:ACUTE: ELECTROLYTE-SEVERE SKIN IRRITATION, DAMAGE TO CORNEA MAY CAUSE BLINDNESS, UPPER RESPIRATORY IRRITATION. LEAD COMPOUNDS-SYMPTOMS OF TOXICITY INCLUDE HEADACHE, FATIGUE, ABDOMINAL PAIN, L
OSS OF AP PETITE, MUSCULAR ACHES AND
WEAKNESS, SLEEP DISTURBANCES & IRRITABILITY. CHRONIC: ELECTROLYTE-POSSIBLE EROSION OF TOOTH ENAMEL; INFLAMMATION OF NOSE, THROAT AND LEAD COMPOUNDS-ANEMIA; NEUROPATHY, PART ICULARLY OF THE MOTOR NERVES, WITH WRIST DROP; KIDNEY DAMAGE; REPRODUCTIVE CHANGES IN BOTH MALES AND FEMALES.
Explanation of Carcinogenicity:LEAD COMPOUNDS: LISTED AS A 2B CARCINOGEN BY IARC, LIKELY IN ANIMALS AT EXTREME DOSES. PROOF OF CARCINOGENICITY IN HUMANS
IS LACKING AT PRESENT. LISTED BY ACGIH AS
A3.
Effects of Overexposure:ELECTROLYTE: INHALATION-BREATHING OF SULFURIC ACID VAPOR OR MISTS MAY CAUSE SEVERE RESPIRATORY IRRITATION. BREATHING-BREATHING OF SULFURIC ACID VAPOR OR MISTS MAY CAUSE SEVERE RESPIRATORY IRRITATION. INGESTION-MAY CAUSE SEVERE IRRITATION OF MOUTH, THROAT, ESOPHAGUS AND STOMACH. SKIN-SEVERE IRRITATION, BURNS AND ULCERATION. EYE-SEVERE IRRITATION, BURNS, CORNEA DAMAGE, BLINDNESS.
Medical Cond Aggr
avated by Exposure: SULFURIC ACID MAY AGGRIVATE
PULMONARY CONDITIONS, SKIN DISEASES SUCH AS ECZEMA AND CONTACT DERMITITIS. LEAD MAY AGGRAVATE SOME FORM OF KIDNEY, LIVER AND NEUROLOGICAL DISEASES.

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

First Aid:ELETROLYTE: INHALATION-REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING IS DIFFICULT, GIVE OXYGEN. INGESTION-GIVE LARGE QUANTITIES OF WATER; DO NOT INDUCE VOMITING, CONSULT PHYSICIAN. SKIN- FLUSH WITH

W ATER FOR 15 MINS; REMOVE CONTAMINATED CLOTHING COMPLETELY, INCLUDING SHOES. EYES-FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINS; CONSULT PHYSICIAN IMMEDIATELY. LEAD: INHALATION-REM OVE FROM EXPOSURE, GARGLE, WASH NOSE & LIPS; CONSULT PHYSICIAN. INGESTION-CONSULT PHYSICIAN IMMEDIATELY. SKIN-WASH IMMEDIATELY WITH SOAP & WATER. EYES-FLUSH IMMEDIATELY WITH WATER FOR 15 MINS; CONSULT PHYSICIAN IMMEDIATELY.

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

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 APPLICATION AND WEAR ACID-RESISTANT CLOTHING, GLOVES, FACE AND EYE PROTECTION. IF BATTERIES ARE ON CHARG E, SHUT OFF ELECTRIC SHOCK, EVEN WHEN CHARGING EQUIPMENT IS SHUT DOWN.
Unusual Fire/Explosion Hazard:IN OPERATION, BATTERIES GENERATE AND RELEASE HYD
ROGEN GAS. THEY MUST ALWAYS BE ASSUMED TO CONTAIN THIS GAS WHICH, IF IGNITED BY BURNING CIGARETTE, NAKED FLAMES OR SPARKS, MAY CAUSE BATTERY EXPLOSION W ITH DISPERSION OF FRAGMENTS AND CORROSIVE LIQUID ELECTROLYTE.

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

Spill Release Procedures:STOP FLOW OF MATERIAL, CONTAIN/ABSORB SMALL SPILLS WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. IF POSSIBLE, CAREFULLY NEUTRALIZE SPILLED ELECTROL
YTE
WITH SODA ASH, SODIUM BICA RBONATE, LIME, ETC. WEAR ACID-RESISTANT CLOTHING, BOOTS, GLOVES, AND FACE SHIELD. NEUTRALIZED ACID MUST BE MANAGED IN ACCORDANCE WITH APPROVED LOCAL, STATE AND FEDERAL REQUIREMENTS.
Neutralizing Agent:CAREFULLY NEUTRALIZE SPILLED ELECTROLYTE WITH SODA ASH, SODIUM BICARBONATE, LIME, ETC.

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

Handling and Storage Precautions:HANDLING-NO HAZARDS UNDER NORMAL USAGE AS THE SULFURIC

ACID IS IMMOBILIZED IN A GEL STRUCTURE.
STORAGE-STORE BATTERIES UNDER ROOF IN A COOL, DRY, WELL-VENTILATED AREA WHICH ARE SEPERATED FROM INCOMPAT IBLE MATERIALS AND FROM ACTIVITIES WHICH MAY CREATE FLAMES, SPARKS, OR HEAT.
Other Precautions:KEEP AWAY FROM METALLIC OBJECTS WHICH COULD BRIDGE THE TERMINALS ON A BATTERY AND CREATE A DANGEROUS SHORT-CIRCUIT. SINGLE BATTERIES POSE NO RISK OF ELECTRIC SHOCK, BUT THERE MAY BE INCREASING RISK OF ELECTRIC SHOCK FROM STRINGS OF CO
NNECTED
BATTERIES EXCEEDING THREE 12-VOLT UNITS.

========== 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:NONE REQUIRED UNDER NORMAL CONDITIONS.
Eye
Protection:NONE REQUIRED UNDER NORMAL CONDITIONS.
Other Protective Equipment:UNDER SEVERE EXPOSURE OR EMERGENCY CONDITIONS, WEAR ACID-RESISTANT CLOTHING, GLOVES, BOOTS.
Work Hygienic Practices:IF BATTERY CASE IS DAMAGED, AVOID BODILY CONTACT WITH INTERNAL COMPONENTS. WEAR PROTECTIVE CLOTHING, EYE AND FACE PROTECTION.
Supplemental Safety and Health
EMERGENCY FLUSHING: IN AREAS WHERE WATER & SULFURIC ACID SOLUTIONS ARE HANDLED IN CONCENTRATIONS GREATYER THAN 1%, EMERGENCY EYEWASH

STATIONS & SHOWERS SHOULD BE PROVIDED, WITH UNLIMITED WATER SUPPLY.

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

HCC:Z4
Boiling Pt:=112.C, 233.6F
Vapor Pres:21
Vapor Density:1.30
Evaporation Rate & Reference: