EXIDE CORP -- LEAD-ACID BATTERY -- 6140-01-203-4694
========== Product Identification ==========

Product ID:LEAD-ACID BATTERY
MSDS Date:09/01/1993
FSC:6140
NIIN:01-203-4694
MSDS Number: BTRKY
=== Responsible Party ===
Company Name:EXIDE CORP
Address:645 PENN ST
City:READING
State:PA
ZIP:19612-4205
Country:US
Info Phone Num:215-378-0798
Emergency Phone Num:215-378-0798
CAGE:20038
=== Contractor Identificatio
n ===
Company Name:CAMPBELL, J R EQUIPMENT CO
Address:3659 PARKWAY LN
Box:City:HILLIARD
State:OH
ZIP:43026-1236
Country:US
Phone:614-876-0132
CAGE:7T245
Company Name:CHICAGO INDUSTRIAL TRADING CO
Address:1901 LANDMEIER RD
Box:City:ELK GROVE VILLAGE
State:IL
ZIP:60007
Country:US
Phone:708-981-0090
CAGE:0K4U5
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:EXIDE CORP.-GENERAL BATTERY CORP
Addr

ess:645 PENN STREET
Box:City:READING
State:PA
ZIP:19601
Country:US
Phone:215-378-0527/800-424-9300(CHEMTREC)
CAGE:08163
Company Name:FIATALLIS N. AMERICA INC/CENTRAL PARTS OPERATION
Address:245 E NORTH AVE
Box:City:WHEATON
State:IL
ZIP:60187
Country:US
CAGE:2L857

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

Ingred Name:LEAD (SARA III)
CAS:7439-92-1
RTECS #:OF7525000
Fraction by Wt: 53% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.05 MG/M3;1910.1025
ACGIH TLV:0.15 MG/M
3;DUST 9293
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY (SARA III)
CAS:7440-36-0
RTECS #:CC4025000
Fraction by Wt: 0.2% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.5 MG/M3
ACGIH TLV:0.5 MG SB/M3; 9293
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA III)
CAS:7440-38-2
RTECS #:CG0525000
Fraction by Wt: 0.003% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.5 MG/M3 (AS)
ACGIH TLV:0.01,A1 MG/M3; 9394
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:CALCIUM, METAL
CAS

:7440-70-2
RTECS #:EV8040000
Fraction by Wt: 0.02% %
Other REC Limits:NONE RECOMMENDED

Ingred Name:TIN
CAS:7440-31-5
RTECS #:XP7320000
Fraction by Wt: 0.06% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:2 MG/M3
ACGIH TLV:2 MG/M3; 9293

Ingred Name:POLYPROPYLENE RUBBER
CAS:9003-07-0
Fraction by Wt: 5-6% %
Other REC Limits:NONE RECOMMENDED

Ingred Name:SULFURIC ACID (SARA III)
CAS:7664-93-9
RTECS #:WS5600000
Fraction by Wt: 30-40% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 M
G/M3; 9394
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:SILICA, CRYSTALLINE - FUSED
CAS:60676-86-0
RTECS #:VV7328000
Fraction by Wt: 3-5% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:10 MG/M3 RDUST; Z-3
ACGIH TLV:0.1 MG/M3 RDUST;9394

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:HAZARDOUS EXPOSURE TO LEAD COMPOUNDS

CAN OCCUR ONLY WHEN PRODUCT IS HEATED, OXIDIZED OR OTHERWISE PROCESSED OR DAMAGED TO CREATE DUST, VAPOR OR FUME. INHALATION OF LEAD DUST MAY CAUSE RESPIRATORY TRAC T IRRITATION. INGESTION MAY CUASE GASTROINTESTINAL DISTURBANCES. MAY CAUSE EYE IRRITATION.

Explanation of Carcinogenicity:CONTAINS INORGANIC ARSENIC [7440-38-2] AND LEAD WHICH ARE LISTED BY NTP AND IARC AND REGULATED BY OSHA AS CARCINOGENS.

Effects of Overexposure:ACUTE: HEADACHE, FATIGUE, ABDOMINAL PAIN, LOSS

OF APPETITE, MUSCULAR ACHES AND WEAKNESS, SLEEP DISTURBANCES AND IRRITABILITY. CHRONIC: ANEMIA, NEUROPATHY--PARTICULARLY OF THE MOTOR NERVES WITH WRIST D ROP, KIDNEY DAMAGE, REPRODUCTIVE CHANGESIN BOTH MALES AND FEMALES.

Medical Cond Aggravated by Exposure:LEAD AND ITS COMPOUNDS CAN AGGRAVATE SOME FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE. GARGLE, WASH NOSE A
ND LIPS.
CONSULT PHYSICIAN. INGESTION: CONSULT PHYSICIAN IMMEDIATELY. SKIN: WASH IMMEDIATELY WITH SOAP AND WATER. EYES: FLUSH IMMEDIATELY WITH LARG E AMOUNTS OF WATER FOR 15 MINUTES. CONSULT PHYSICIAN.

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

Lower Limits:4.1 % (H2)
Upper Limits:74.2% (H2)
Extinguishing Media:CARBON DIOXIDE, FOAM, DRY CHEMICAL
Fire Fighting Procedures:USE POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS. WATER APPLIED TO ELECTRO
LYTE GENERATES HEAT &
CAUSES IT TO SPLATTER. WEAR CAID-RESISTANT CLOTHING.
Unusual Fire/Explosion Hazard:HIGHLY FLAMMABLE HYDROGEN GAS (H2) IS GENERATED DURING CHARGING AND OPERATION. TO AVOID RISK, KEEP IGNITION SOURCES AWAY FROM BATTERIES.

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

Spill Release Procedures:STOP FLOW OF MATERIALM, CONTAIN/ABSORB SPILLS WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLE MATERIALS. IF POSSIBLE, CAREFULLY NEUTR

ALIZE ELECTROLYTE WITH SODA
ASH, SODIUM BICARBONATE, LIME , ETC. WEAR ACID-RESISTANT CLOTHING, BOOTS, GLOVES
Neutralizing Agent:SODA ASH, SODIUM BICARBONATE, LIME.

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

Handling and Storage Precautions:STORE BATTERIES IN COOL, DRY, WELL-VENTILATTED AREAS WITH IMPERVIOUS SURFACES AND ADEQUATE CONTAINMENT IN THE EVENT OF SPILLS.
Other Precautions:BATTERIES SHOULD BE STORED UNDER ROOF FOR PROTECTION AGAINST ADVERS
E WEATHER CONDITIONS. SEPARATE FROM INCOMPATIBLE MATERIALS. STORE AND HANDLE ONLY IN AREAS WITH ADEQUATE WATER SUPPLY AND SPILL CONTR OL. AVOID DAMAGE TO CONTAINERS.

========== 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
Eye Protection:CHEMICAL GOGGLES/FACE SHIELD
Other Protective Equipment:ACID RESISTANT APRON. UNDER SEVERE EXPOSURE OR EMERGENCY, WEAR ACID-RESISTANT CLOTHING AND BOOTS.
Work Hygienic Practices:HANDLE BATTERIES CAUTIOUSLY TO AVOID SPILLS. MAKE CERTAIN VENT CAPS ARE ON SECURELY. AVOID CONTACT WITH INTERNAL PARTS.
Supplemental Safety and Health
IN AREAS WHERE SULFURIC ACID IS H
ANDLED IN CONCENTRATIONS GREATER THAN 1%, EMERGENCY EYEWASH STATIONS AND SHOWERS SHOULD BE PROVIDED, WITH UNLIMITED WATER SUPPLY.

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

HCC:Z4
Boiling Pt:B.P. Text:203-240F
Vapor Pres:17 TO 11
Vapor Density:>1
Spec Gravity:1.23 TO 1.350
Evaporation Rate & Reference:LESS THAN 1
Solubility in Water:100%
Appearance and Odor:MANUFACTURED ARTICLE; NO APPARENT ODOR. ELECTROLYTE IS CLEAR LIQUID.

========== Stabili

ty and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
STRONG ACIDS, BASES, HALIDES, HALOGENATES, POTASSIUM NITRATE, PERMANGANATE, PEROXIDES, REDUCING AGENTS, NASCENT HYROGEN
Stability Condition to Avoid:PROLONGED OVERCHARGE, SOURCES OF IGNITION.
Hazardous Decomposition Products:TOXIC METAL FUME/VAPOR/DUST; CONTACT WITH STRONG ACID IN PRESENCE OF NASCENT HYDROGEN MAY GENERATE ARSINE GAS.

========== Disposal Considerations ==========
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Waste Disposal Methods:SEND SPENT BATTERIES TO SECONDARY LEAD SMELTER FOR RECYCLING. PLACE NEUTRALIZED SLURRY INTO SEALED CONTAINERS AND DISPOSE OF AS HAZARDOUS WASTE AS APPLICABLE. WASTE SHOULD BE MANAGED IN ACCORDANCE WIT H APPROVED LOCAL, STATE AND FEDERAL REQUIREMENTS.