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

Product ID:DRY CHARGE BATTERY

MSDS Date:09/01/1993

FSC:6140

NIIN:00-836-1279

MSDS Number: BXWLN

=== 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 Identification ===

Company Name:EXIDE CORP

Address:645 PENN STREET

Box:1420

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City:READING

State:PA

ZIP:19612-4205

Country:US

Phone:610-378-0500/0798

CAGE:20038

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===== 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/M3;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:NO  
NE 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

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

LD50 LC50 Mixture:150 UG/M3 ACGIH TLV FOR LEAD  
Routes of Entry: Inhalation:YES Skin:NO 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 HEA

TED, 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 WE

AKNESS, SLEEP DISTURBANCES AND

IRRITABILITY. CHRONIC: ANEMIA, NEUROPATHY--PARTICULARLY OF THE

MOTOR NERVES WITH WRIST D ROP, KIDNEY DAMAGE, REPRODUCTIVE CHANGES IN BOTH MALES AND FEMALES.

Medical Cond Aggravated by Exposure:LEAD AND ITS COMPOUNDS CAN

AGGRAVATE SOME FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE. GARGLE, WASH NOSE AND LIPS. CONSULT PHYSICIAN. INGE

STION: CONSULT PHYSICIAN IMMEDIATELY. SKIN:

WASH IMMEDIATELY WITH SOAP AND WATER. EYES: FLUSH IMMEDIATELY WITH LARG E AMOUNTS OF WATER FOR 15 MINUTES. CONSULT PHYSICIAN.

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

Flash Point:NONFLAMMABLE

Lower Limits:4.1 % (H2)

Upper Limits:74.2% (H2)

Extinguishing Media:CARBON DIOXIDE, FOAM, DRY CHEMICAL

Fire Fighting Procedures:WEAR FULL BODY PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS WITH POSITIVE PRESS

URE AND FULL

FACEPIECE.

Unusual Fire/Explosion Hazard:HIGHLY FLAMMABLE HYDROGEN GAS (H2) IS

GENERATED DURING CHARGING AND OPERATION. TO AVOID RISK, KEEP IGNITION SOURCES AWAY FROM BATTERIES.

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

Spill Release Procedures:LEAD DUST SHOULD BE VACUUMED OR WET-SWEPT. USE CONTROLS WHICH MINIMIZE FUGITIVE EMISSIONS. DO NOT USE COMPRESSED AIR.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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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.

Other Precautions:BATTERIES SHOULD BE STORED UNDER ROOF FOR PROTECTION AGAINST ADVERSE WEATHER CONDITIONS. SEPARATE FROM INCOMPATIBLE MATERIALS. STORE AND HANDLE ONLY IN AREAS WITH ADEQUATE WATER SUPPLY AND SPILL CONTROL. AVOID DAMAGE TO CONTAINERS.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL CONDITIONS.

Ventilation:STORE AND HANDLE IN WELL-VENTILATED AREA.

Protective Gloves:RUBBER OR PLASTIC ACID-RESISTANT

Eye Protection:CHEMICAL GOGGLES/FACE SHIELD

Other Protective Equipment:COVERALLS OR FULL-BODY COVERING DURING USE. WHEN FILLING BATTERIES USE ACID RESISTANT APRON.

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

DO NOT ALLOW METALLIC MATERIALS TO SIMULTANEOUSLY CONTACT NEGATIVE AND POSITIVE TERMINALS OF CELLS AND BATTERIES. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND SERVICE.

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

HCC:N1

Boiling Pt:B.P. Text:>2516F,>138

Melt/Freeze Pt:M.P/F.P Text:486F-680F

Spec Gravity:9.6 TO 11.3

Evaporation Rate & Reference:NIL

Solubility in Water:NEGLIGIBLE

Appearance

and Odor:BLUSIH GRAY METAL; NO APPARENT ODOR

Percent Volatiles by Volume:0 %

===== Stability 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 NASC

ENT HYDROGEN MAY GENERATE  
ARSINE GAS.

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

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 WITH APPROVED LOCAL, STATE AND FEDERAL REQUIREMENTS.

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