Product ID:BATTERIES,WET,FILLED WITH ACID,24-70

MSDS Date:01/19/1996

FSC:6140

NIIN:01-337-0210 Status Code:A

MSDS Number: CJFVN === Responsible Party ===

Company Name: CROWN BATTERY MFG CO

Address:1445 MAJESTIC DR

Box:990

City:FREMONT

State:OH

ZIP:43420-0990

Country:US

Info Phone Num:419-334-7181

Emergency Phone Num:800-487-2879/800OILTANK

CAGE:1X

630

=== Contractor Identification ===

Company Name: CROWN BATTERY MFG CO

Address:1445 MAJESTIC DR

Box:City:FREMONT

State:OH

ZIP:43420-0990

Country:US

Phone:419-334-7181

CAGE:1X630

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

Ingred Name:LEAD CAS:7439-92-1

RTECS #:OF7525000

= Wt:23.5

Other REC Limits: NONE RECOMMENDED

OSHA PEL:0.05 MG/M3 ACGIH TLV:0.15 MG/M3

EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:LEAD SULFATE

CAS:7446-14-2

RTECS #:OG4375000

= Wt:13.2

Other REC Limi

ts:NONE RECOMMENDED OSHA PEL:see 1910.1025 ACGIH TLV:0.15 MG/M3 EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

Ingred Name:LEAD OXIDE

CAS:1309-60-0

RTECS #: OG0700000

= Wt:13.

Other REC Limits: NONE RECOMMENDED

OSHA PEL:0.05 MG/M3 (PB) ACGIH TLV:0.05 MG/M3 (PB)

Ingred Name: POLYPROPYLENE CASE MTL

= Wt:5.4

Other REC Limits: NONE RECOMMENDED

Ingred Name: RUBBER CASE MTL

= Wt:1.

Other REC Limits: NONE RECOMMENDED

Ingred Name: SEPARATORS

= Wt:3.5

Other REC Limits: NONE RECOMMENDED

Ingred Name: SULFURIC ACID

CA

S:7664-93-9

RTECS #:WS5600000

= Wt:3.2

Other REC Limits: NONE RECOMMENDED

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:WATER

CAS:7732-18-5

RTECS #:ZC0110000

= Wt:19.2

Other REC Limits: NONE RECOMMENDED

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO Health Hazards Acute and Chronic:TARGET ORGANS: EYE, S

KIN, RESPIRATORY

AND GASTROINTESTINAL TRACTS. ACUTE - ELECTROLYTE (WATER, SULFURIC ACID): INHALATION OF MIST MAY CAUSE SEVERE RESPIRATORY IRRITATION. INGESTION MAY CAUSE SEVERE IR RITATION AND/OR BURNS OF MOUTH, THROAT, ESOPHAGUS, STOMACH. SKIN CONTACT CAUSES SEVERE IRRITATION, BURNS, ULCERATION. EYE CONTACT MAY CAUSE SEVERE IRRITATION, BURNS, CORNEAL DAMAGE, BLINDNESS. LEAD CO MPOUNDS: IF BATTERY IS HEATED ABOVE MELTING POINT, OXIDIZED OR DAMAGED, DUST, VAPOR OR FUME MAY

CAUSE EYE AND RESPIRATORY TRACT IRRITATION, ABDOMINAL PAIN. CHRONIC - EROSION OF TEETH ENAMEL, BRONCHITI S, ANEMIA, NEUROPATHY, KIDNEY DAMAGE

Explanation of Carcinogenicity: CONTAINS LEAD.

Effects of Overexposure:IRRITATION OF EXPOSED AREA, BURNS, AND RESPIRATORY PROBLEMS, TEARING, BLINDNESS, PAIN. NO POSSIBILITY OF OVER EXPOSURE OF LEAD WILL OCCUR UNLESS BATTERY IS DESTROYED.

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS, EYE PROBLEMS

OR IMPAIRED RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS PRODUCT.

First Aid:GET MEDICAL HELP IF SYMPTOMS PERSIST. INHALED: REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IN CASE OF LEAD, GARGLE, WASH NOSE AND LIPS. CONSULT PHYSICIAN. EYES: IMMEDIATEL Y FLUSH WITH WATER FOR AT LEAST 15 MINUTES, LIFTING UPPER AND LOWER EYELIDS, UNTIL NO EDIDENCE OF CHEMICAL RE MAINS.

CONSULT PHYSICIAN IMMEDIATELY. SKIN: REMOVE CONTAMINATED CLOTHING AND SHOES. FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES. IN CASE OF LEAD, WASH WITH SOAP AND WATER. INGESTION: DO NOT INDUCEVOMITING. GIVE MILK TO DRINK. SEEK IMMEDIATE MEDICAL ATTENTION.

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

Flash Point:NOT COMBUSTIBLE
Extinguishing Media:FOR FIRES IN AREA: DRY CHEMICAL, CARBON DIOXIDE,
WATER FOG, WATER
Fire Fighting Procedures:SUL

FURIC ACID MISTS OR VAPORS, SULFUR DIOXIDE

GAS OR CARBON MONOXIDE MAY BE RELEASED. WEAR NIOSH APPROVED SELF
CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:WATER APPLIED TO SULFURIC ACID GENERATES HEAT AND CAUSES ACID TO SPLATTER. WEAR FULL-COVER SULFURIC ACID RESISTANT CLOTHING. SULFURIC ACID REACTS VIOLENTLY WITH METALS TO YIELD EXPLOSIVE/FLAMMABLE HYD ROGEN GAS.

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

Spill Release Procedures:WEAR

ACID-RESISTANT CLOTHING, BOOTS, GLOVES.

FACE SHIELD. STOP FLOW OF MATERIAL. CONTAIN/ABSORB SMALL SPILL WITH DRY SAND, EARTH, VERMICULITE. DO NOT USE COMBUSTIBLES. IF POSSIBLE, CAREFULLY NEUTRALIZ E SPILLED ELECTROLYTE OR EXPOSED BATTERY PARTS WITH SODA ASH, SODIUM BICARBONATE, LIME, ETC. DO NOT ALLOW DISCHARGE OF UNNEUTRALIZED ACID TO SEWER. PLACE IN AN APPROVED CONTAINER FOR REUSE/DISPOSAL.

Neutralizing Agent: SODA ASH, SODIUM BICARBONATE, LIME

Handling and Storage Precautions:STORE BATTERIES UNDER ROOF IN COOL, DRY, WELL-VENTILATED AREA AWAY FROM IGNITION SOURCES, AND INCOMPATIBLE MATERIALS. STORE AND HANDLE ONLY IN AREAS WITH ADEQUATE WATER SUPPLY AND SPILL CONTROL. AVOI D DAMAGE TO

CONTAINERS. USE ONLY RECOMMENDED CHEMICAL CLEANERS ON THE BATTERIES.

Other Precautions:CONTACT WITH METALS MAY PRODUCE TOXIC SULFUR DIOXIDE FUMES AND MAY ALSO RELEASE FLAMMABLE HYDROGEN

GAS. THIS REACTION IS

INTENSIFIED WHEN DILUTED. DO NOT TOUCH BROKEN/LEAKING BATTERIES. AVOID MECHANIC AL/ELECTRICAL ABUSE. KEEP OUT OF REACH OF CHILDREN. DO NOT SHORT CIRCUIT BATTERY.

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

Respiratory Protection: ABOVE P.E.L. NIOSH APPROVED, FITTED, FULL FACE RESPIRATOR

Ventilation:LOCAL EXHAUST IS PREFERRED. MECHANICAL: IF BELOW P.E.L. SPECIAL & OTHER: MUST BE ACID AND EXPLOSIVE RESISTANT.

Protective Gloves:ACID

RESISTANT (RUBBER, NEOPRENE) Eye Protection:FULL FACE PROTECTION Other Protective Equipment:ACID RESISTANT CLOTHING, BOOTS, EYE BATH, WASHING FACILITY, EMERGENCY SHOWER Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH AFTER HANDLING AND BEFORE EATING, DRINKING OR SMOKING. Supplemental Safety and Health
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HCC:C1 Boiling Pt:=95.C, 203.F B.P. Text:APPROXIMATELY Melt/Fr eeze Pt:=-37.2C, -35.F M.P/F.P Text:-35F TO +10.6F Vapor Pres:14@37%@80F Vapor Density:>1 Spec Gravity:1.245-1.295 ELECTROLYTE pH:ACIDIC Solubility in Water:100% (ELECTROLYTE)
Appearance and Odor:CLEAR LIQUID WITH SHARP PUNGENT ODOR (ELECTROLYTE)
========= Stability and Reactivity Data ==========
Stability Indicator/Materials to Avoid:YES AVOID COMBUSTIBLES, ORGANIC MATERIALS, AND STRONG REDUCING AGENTS. Stability Condition to Avoid:NONE Hazardous Decomposition Products:SULFUR TRIOXIDE, CARBON MONOXIDE, SULFURIC ACID FUMES, & SULFUR DIOXIDE.
======= Disposal Considerations ==========
Waste Disposal Methods:DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
========== Other Information ===========
Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department

of Defense. The United States of A

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