Product ID:LEAD ACID BATTERY MSDS Date:11/15/1985 FSC:6140 NIIN:01-360-6489 MSDS Number: BQFGP === Responsible Party === Company Name: JOHNSON CONTROLS INC GLOBE BATTERY DIV Address:5757 N GREEN BAY AVE Box:591 City:MILWAUKEE State:WI ZIP:53201 Country:US Info Phone Num:414-228-2746/31 39/FAX 414-961-6506 Emergency Phone Num:414-228-1200 Preparer's Name: ALBERTA L SCHUMACHER Chemtrec Ind/Phone:(800)424-9300 CAGE:25244 === Contractor Identification === **Company Name: BATTERY OUTLET INC** Address: 1608 CAMPOSTELLA RD Box:City:CHESAPEAKE State:VA ZIP:23324 Country:US Phone:757-545-4442 CAGE:0FGN2 Company Name: JOHNSON CONTROLS INC GLOBE BATTERY DIV Address:5757 N GREEN BAY AVE Box:591 City:MILWAUKEE State:WI ZIP:53201 Country:US Phone:800-365-7777 CAGE:25244

======= Composition/

Information on Ingredients ========

Ingred Name:LEAD (SARA III)/GRID/SPONGE LEAD CAS:7439-92-1 RTECS #:OF7525000 Other REC Limits:100 UG/M3 (NIOSH) 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:LEAD PEROXIDE/LEAD DIOXIDE CAS:1309-60-0 RTECS #:OG0700000 Other REC Limits:100 UG/M3 (OSHA) OSHA PEL:0.05 MG/M3 AS PB ACGIH TLV:0.15 MG/M3 AS PB

Ingred Name:LEAD SULFATE (SARA III) CAS:7446-14-2 RTECS #:OG4375000 Other REC Limits:100 UG/M3 (NIOSH) OSHA PEL:SEE 1910.1025 ACGIH TLV:0.15 MG PB/M3; 9293 EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

Ingred Name:SULFURIC ACID (SARA III)/BATTERY ACID (35%) CAS:7664-93-9 RTECS #:WS5600000 Other REC Limits:1 MG/M3 (NIOSH) OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3; 9293 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

LD50 LC50 Mixture:TLV FOR SULFURIC ACID IS 1 MG/M3. Routes of Entry: Inhalation:NO Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:UNKNOWN IARC:YES OSHA:NO Health Hazards Acute and Chronic:ACUTE-LEAD MAY CAUSE GI UPSET,LOSS OF APPETITE,DIARRHEA,CONSTIPATION,CRAMPING,LACK OF SLEEP & FATIGUE.CONTACT WITH SULFURIC ACID MAY LEAD TO EYE,SKIN & RESPIRATORY TRACT IRRITATION,CORNEAL & LUNG DAMA GE.CHRONIC-LEAD MAY CAUSE ANEMIA,KIDNEY& NERVOUS SYSTEM DAMAGE.ACID CAN CAUSE BRONCHITIS,EROSION OF TOOTH ENAMEL.

Explanation of Carcinogenicity:LEAD IS POSSIBLY CARCINOGENIC TO HUMAN (MSDS

).

- Effects of Overexposure:LEAD MAY CAUSE GI UPSET, LOSS OF APPETITE, DIARRHEA, CONSTIPATION, CRAMPING, LACK OF SLEEP & FATIGUE. CONTACT WITH SULFURIC ACID MAY LEAD TO EYE, SKIN & RESPIRATORY TRACT IRRITATION, CORNEAL & LUNG DA MAGE.
- Medical Cond Aggravated by Exposure: INORGANIC LEAD AND ITS COMPOUNDS CAN AGGRAVATE CHRONIC FORMS OF KIDNEY, LIVER AND NEUROLOGIC DISEASES. CONTACT OF SULFURIC ACID WITH THE SKIN MAY AGGRAVATE SKIN DISEASES SUCH AS ECZEMA AND DERMATITIS.

First Aid:OBTAIN MEDICAL ATTENTION IN ALL CASES OF EXPOSURE.EYES/SKIN:FLUSH WITH WATER FOR 15 MINUTES.KEEP EYELIDS OPEN.INHALATION:MOVE TO FRESH AIR.INGESTION:DO NOT INDUCE VOMITING.CALL PHYSICIAN IMMEDIATELY.

Flash Point:NON-FLAMMABLE

Extinguishing Media:CARBON DIOXIDE, FOAM, OR DRY CHEMICAL. WATER SPRAY MAY BE USED TO COOL FIRE-EXPOSED CONTAIN
ER & DECREASE VAPORS.
Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.
Unusual Fire/Explosion Hazard:HYDROGEN AND OXYGEN GASES ARE PRODUCED IN THE CELLS DURING NORMAL BATTERY OPERATION. THEY ENTER THE AIR THROUGH THE VENT CAPS. KEEP AWAY SPARKS/SOURCES OF FIRE.

Spill Release Procedures:WEAR PR

OTECTIVE EQUIPMENTS. REMOVE

COMBUSTIBLES & IGNITION SOURCES (H2 MAY BE PRESENT). CONTAIN BY DIKING AND COVER SPILL WITH SODA ASH OR QUICKLIME. MIX WELL. CHECK THAT MIXTURE IS NEUTRAL. COLLECT A ND PLACE IN A DRUM. DO NOT FLUSH TO SEWER.

Neutralizing Agent:SODA ASH (SODIUM CARBONATE), QUICKLIME (CALCIUM OXIDE)

Handling and Storage Precautions: STORAGE-STORE NEAR EYEWASH FOUNTAIN AND SAFETY SHOWER. STORAGE AREA SHOULD BE EQUIPPED WITH A DRAIN WHICH CAPTURES SPILLS OF ACID FOR PROPER DISPOSAL. Other Precautions: KEEP TERMINALS COVERED IN PLASTIC CASE. AVOID SHORTING BATTERIES. DO NOT CRACK OR OVERCHARGE BATTERIES. KEEP LIGHTED CIGARETTES, SPARKS, AND FLAMES AWAY FROM CHARGING BATTERIES. KEEP OUT OF REACH OF S MALL CHILDREN. Respiratory Protection:NOT REQUIRED UNDER NORMAL USE. USE NIOSH-APPROVED ACID-MIST FILT ER RESPIRATOR IF 1 MG/M3 TWA IS EXCEEDED (ACID). Ventilation: ADEQUATE GENERAL VENTILATION Protective Gloves: RUBBER Eye Protection: SPLASH-PROOF CHEMICAL GOGGLES Other Protective Equipment: RUBBER APRON AND BOOTS. EYES WASH STATION AND SAFETY SHOWER. USE ACID-PROOF CLOTHING FOR MAJOR SPILLS. Work Hygienic Practices: REMOVE METALLIC JEWELRY-SHOCK POTENTIAL. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING AND DRINKING. Supplemental Safety and Health BE SURE VENT CAPS ARE ON TIGHTLY. PLACE A MINIMUM OF 2 LAYERS OF CORRUGATED CARDBOARD BETWEEN LAYERS OF BATTERIES. WHEN STACKING IN TRAILER, STACK NO MORE THAN 3 LAYERS HIGH. USE A BATTERY CARRIER TO LIFT A BATTERY OR PLACE HANDS AT OPPOSITE CORNERS TO AVOID SPILLING ACID THROUGH VENT, AVOID CONTACT WITH INSIDE.

HCC:Z4

Appearance and Odor:AN OBJECT WITH TRANSPARENT-OPAQUE CASE AND SEALED COVER, TERMINAL, VENT, ODORLESS

====== Stabili

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

Stability Indicator/Materials to Avoid:YES
POTASSIUM,CARBIDES,SULFIDES,PEROXIDES,P,S,COMBUSTIBLE MATERIALS,STRONG REDUCING AGENTS,MOST METALS,CARBIDES,CHLORATES
Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES, OVERCHARGING, SMOKING, SPARKS
Hazardous Decomposition Products:OXIDES OF LEAD AND SULFUR, HYDROGEN, SULFUR DIOXIDE AND SULFUR TRIOXIDE

Waste Disposal Methods:DIS POSE AS HAZARDOUS WASTE. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS FOR ACID OR LEAD SCRAP. SEND BATTERIES TO LEAD SMELTER FOR RECLAMATION FOLLOWING APPLICABLE FEDERAL, STATE AN D LOCAL REGULATIONS.

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 America in no manner whatsoever, expressly or implied, warrants this information to be acc urate and disclaims all liability for its use. Any person utilizing this

document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.