JOHNSON CONTROLS INC GLOBE BATTERY DIV -- ABSORBED ELECTROLYTE BATTERY/DYNASTY -- 6140-01-111-3882

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

Product ID:ABSORBED ELECTROLYTE BATTERY/DYNASTY
MSDS Date:01/01/1997
FSC:6140
NIIN:01-111-3882
Status Code:A
MSDS Number: CKJST
=== Responsible Party ===
Company Name:JOHNSON CONTROLS INC GLOBE BATTERY DIV
Address:5757 N GREEN BAY AVE
Box:591
City:MILWAUKEE
State:W
I
ZIP:53201
Country:US
Info Phone Num:414-228-2746/800-424-9300(CHEMTREC)
Emergency Phone Num:414-228-3138
Resp. Party Other MSDS Num.:L 84
Chemtrec Ind/Phone:(800)424-9300
CAGE:25244
=== Contractor Identification ===
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
CAS:7439-92-1
RTECS #:OF752500

0
= Wt:50.
ACGIH TLV:0.15 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:LEAD DIOXIDE
CAS:1309-60-0
RTECS #:OG0700000
= Wt:21.

Ingred Name:LEAD SULFATE
CAS:7446-14-2
RTECS #:OG4375000
< Wt:1.
OSHA PEL:SEE 1910.1025
ACGIH TLV:0.15 MG/M3
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:SULFURIC ACID (ELECTROLYTE)
CAS:7664-93-9
RTECS #:WS5600000
= Wt:22.
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

========== Hazards Iden
tification ==========

LD50 LC50 Mixture:NO DATA PROVIDED BY RESPONSIBLE PARTY.
Reports of Carcinogenicity:NTP:UNKNOWN IARC:YES
Health Hazards Acute and Chronic:INHALATION: ACID MIST GENERATED DURING BATTERY FORMATION MAY CAUSE RESPIRATORY IRRITATION. SKIN: BATTERY ELECTROLYTE (ACID) MAY CAUSE IRRITATIVE CONTACT DERMATITIS. SKIN ABSORPTION: SKIN ABSORPTION IS NOT A SIGNIFICANT ROUTE OF ENTRY. EYE:BATTERY ELECTROLYTE (ACID) WILL IRRITATE THE EYES UPON CONTACT. I

NGESTION: HANDS CONTAMINATED BY CONTACT WITH INTERNAL COMPONENTS OF A BATTERY CAN CAUSE INGESTIO N OF LEAD/LEAD COMPOUNDS. HANDS SHOULD BE WASHED PRIOR TO EATING, DRINKING OR SMOKING.

Explanation of Carcinogenicity:THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CLASSIFIED "STRONG INORGANIC ACID MIST CONTAINING SULFURIC ACID" AS A CATEGORY 1 CARCINOGEN, A SUBSTANCE THAT IS CARCINOOGENIC TO HUMANS. THI S CLASSIFICATION DOES NOT APPLY TO LIQUID FORMS OF SULFURIC

ACID OR SULFURIC ACID SOLUTIONS WITHIN A

BATTERY.

Effects of Overexposure:ACUTE EFFECTS OF OVEREXPOSURE TO LEAD ARE GI (GASTROINTESTINAL) UPSET WHICH MAY BE LOSS OF APPETITE, DIARRHEA &/OR COMSTIPATION WITH CRAMPING, DIFFICULTY IN SLEEPING, & FATIGUE. EXPOSURE &/OR CONTACT WITH BATTEY ELECTROLYTE (ACID) MAY LEADTO IRRITATION OF THE SKIN, CORNEAL DAMAGE TO THE EYES IF NOT WASHED IMMEDIATELY, & IRRITATION OF THE MUCUOUS MEMBRANES OF THE EYES & UPPER RESPIRATORY SYSTEM

INC LUDING LUNGS. CHRONIC EFFECTS: LEAD &

ITS COMPOUNDS MAY CAUSE CHRONIC ANEMIA, DAMAGE TO THE KIDNEYS & NERVOUS STSTEM. LEAD MAY ALSO CAUSE REPRODUCTIVE SYSTEM DAMAGE & CAN AFFECT DEVELOPING

Medical Cond Aggravated by Exposure:INORGANIC LEAD & ITS COMPOUNDS CAN AGGRAVATE CHRONIC FORMS OF KIDNEY, LIVER, & NEUROLOGIC DISEASES. CONTACT OF BATTERY ELECTROLYTE (ACID) WITH THE SKIN MAY AGGRAVATE SKIN DISEASES SUCH AS ECZEMA.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE & CONSULT A PHYSICIAN IF ANY OF THE ACUTE EFFECTS LISTED DEVELOP. SKIN: WASH THOROUGHLY WITH SOAP & WATER. IF ELECTROLYTE COMES INTO CONTACT WITH CLOTHING, REMOVE & DI SCARD. EYE: IMMEDIATELY RINSE WITH COOL RUNNING WATER FOR AT LEAST 15 MINS. SEEK MEDICAL ATTENTION AFTER RINSING. INGESTION: LEAD/LEAD COMPOUNDS, CONSULT A PHYSICIAN. ELECTROLYTE: DO NOT INDUCE VOMITI NG. REFER TO A PHYSICIAN IMMEDIATELY.

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

Flash Point:=259.C, 498.2F

HYDROGEN

Autoignition Temp:=580.C, 1076.F

Autoignition Temp Text:H2

Lower Limits:4.1

Upper Limits:74.2

Extinguishing Media:DRY CHEMICAL, FOAM, OR CARBON DIOXIDE (CO2).

Fire Fighting Procedures:USE POSITIVE PRESSURE SELF CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:HYDROGEN & OXYGEN GASES ARE PRODUCTED IN THE CELLS DURING NORMAL BATTERY OPERATION (HYDROGEN IS FLAMMABLE & OXYGEN

SUPPORTS COMBUSTION). THESE GASES ENTER THE AIR THROUGH THE VENT CAPS. TO AVOID THE C HANCE OF A FIRE OR EXPLOSION, KEEP SPARKS & OTHER SOURCES OF IGNITION AWAY FROM THE BATTERY.

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

Spill Release Procedures:REMOVE COMBUSTIBLE MATERIALS & ALL SOURCES OF IGNITION. COVER SPILL WITH SODA ASH (SODIUM CARBONATE) OR QUICKLIME (CALCIUM OXIDE). MIX WELL. MAKE CERTAIN MIXTURE IS NEUTRAL THEN COLLECT RESIDUE & PLAC E IN
A DRUM OR OTHER SUITABLE CONTAINER.
DISPOSE OF AS A HAZARDOUS WASTE. WEAR ACID-RESISTANT BOOTS, CHEMICAL FACESHIELD, SPLASH GOGGLES & ACID RESISTANT GLOVES. DO NOT RELEASE UNNEUTRALIZED ACID!
Neutralizing Agent:SODA ASH (SODIUM CARBONATE) OR QUICKLIME (CALCIUM OXIDE)

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

Handling and Storage Precautions:STORE LEAD/ACID BATTERIES WITH ADEQUATE VENTILATION. ROOM VENTILATION IS REQUIRED FOR BATTERIES UTILIZED
FOR STANDBY POWER GENERATION. NEVER RE-CHARGE BATTERIES IN AN UNVENTILATED, ENCLOSED SPACE. DO NOT REMOVE VENT CAPS.
Other Precautions:FOLLOW SHIPPING & HANDLING INSTRUCTIONS WHICH ARE APPLICABLE TO THE BATTERY TYPE. TO AVOID DAMAGE TO TERMINALS AND SEALS, DO NOT DOUBLE-STACK INDUSTRIAL BATTERIES.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL HANDLING CONDITIONS. DURING BATTERY FORMATION (HIGH-RATE CHARGE
CONDITION), ACID MIST
CAN BE GENERATED WHICH MAY CAUSE RESPIRATORY IRRITATION. IF IRRITATION OCCURS, WEAR A R ESPIRATOR SUTIABLE FOR PROTECTION AGAINST ACID MIST.
Ventilation:NO DATA PROVIDED BY RESPONSIBLE PARTY.
Protective Gloves:VINYL COATED, PVC, GAUNTLET TYPE GLOVES WITH ROUGH FINISH ARE PREFERRED
Eye Protection:CHEMICAL SPLASH GOGGLES, "VISOR-GOGS", CHEMICAL FACE SHIELD OVER SAFETY GLASSES
Other Protective Equipment:SAFETY SHOES ARE RECOMMENDED WHEN HANDLING BATTERI

ES. ALL FOOTWEAR MUST MEET REQUIREMENTS OF ANSI Z41.1 - REV 1972. WEAR ACID-RESISTANT BOOTS.
Work Hygienic Practices:WASH HANDS THOROUGHLY BEFORE EATING, DRINKING OR SMOKING. DISCARD COMTAMINATED CLOTHING.
Supplemental Safety and Health
NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

HCC:Z4
Boiling Pt:B.P. Text:110 C-112 C (ACID)
Melt/Freeze Pt:=327.C, 620.6F
M.P/F.P Text:(LEAD)
Vapor Pres:11.7 (ELECTROLYTE)
Vapor Density:3.4
(ACID)
Spec Gravity:1.3 (ACID)
Evaporation Rate & Reference:NOT DETERMINED
Solubility in Water:COMPLETE (ACID)
Appearance and Odor:ELECTROLYTE-CLEAR TO CLOUDY LIQUID ABSORBED BY INTERNAL BATTERY COMPONENTS.
Percent Volatiles by Volume:N/D

========== Stability and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
LEAD/LEAD COMPOUNDS: POTASSIUM, CARBIDES, SULFIDES, PEROXIDES, PHOSPHORUS, SULFUR. BATTERY ELECTROLYTE (ACID): COMBUSTIBLE MATERIALS
, STRONG REDUCING AGENTS, MOST METALS, CARBIDES, ORGANIC MATERIALS, CHLORATES, NITRATES, PI
Stability Condition to Avoid:SPARKS AND OTHER SOURCES OF IGNITION. HIGH TEMPERATURES. BATTERY ELECTROLYTE (ACID) WILL REACT WITH WATER TO PRODUCE HEAT. CAN REACT WITH OXIDIZING OR REDUCING AGENTS.
Hazardous Decomposition Products:LEAD/LEAD COMPOUNDS: OXIDES OF LEAD & SULFUR. BATTERY ELECTROLYTE (ACID): HYDROGEN, SULFUR DIOXIDE, SULFUR TRIOXIDE.
Conditions to Avoid Polymerization:WILL N
OT OCCUR.

========== Toxicological Information ==========

Toxicological Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

========== Ecological Information ==========

Ecological:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Waste Disposal Methods:ELECTROLYTE:NEUTRALIZE AS FOR A SPILL,COLLECT RESIDUE & PLACE IN A DRUM OR SUTIABLE CONTAINER.DISPOSE OF AS A HAZARDOUS WASTE.DO NOT F

LUSH LEAD CONTAMINATED ACID TO SEWER.
BATTERIES:SEND TO LEAD SMELT ER FOR RECLAIMATION FOLLOWING APPLICABLE FEDERAL, STATE & LOCAL REGULATIONS. PRODUCT CAN BE RECYCLED ALONG WITH AUTOMOTIVE (SLI) LEAD-ACID BATTERIES.

========== MSDS Transport Information ==========

Transport Information:DOT-BATTERY, WET NON-SPILLABLE, NOT SUBJECT TO REGULATIONS. IATA-NOT RESTRICTED FOR AIR TRANSPORT-COMPLIES WITH IATA/ICAO SPECIAL PROVISION A67. IMO-BATTERY, WET NON-SPI
LLABLE,
NOT SUBJECT TO REGULATI ONS.

========== Regulatory Information ==========

SARA Title III Information:THE CONTENTS OF THIS PRODUCT ARE TOXIC CHEMICALS THAT ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 302 AND 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40 CFR 355 AND 372).
Federal Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.
State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

==
========== 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 America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility f
or the suitability of this information to their particular situation.