JOHNSON CONTROLS GOVT SYSTEMS -- LEAD ACID BATTERY, (SEE SUPPL) -- 6140-01-433-1883
========== Product Identification ==========

Product ID:LEAD ACID BATTERY, (SEE SUPPL)
MSDS Date:09/15/1993
FSC:6140
NIIN:01-433-1883
Status Code:A
MSDS Number: CLNKL
=== Responsible Party ===
Company Name:JOHNSON CONTROLS GOVT SYSTEMS
Address:507 E MICHIGAN ST
City:MILWAUKEE
State:WI
ZIP:53201
Country:US
Info Phone Num:414
-228-3138
Emergency Phone Num:(800)424-9300
Resp. Party Other MSDS Num.:L 8
Chemtrec Ind/Phone:(800)424-9300
CAGE:1MN13
=== Contractor Identification ===
Company Name:BATTERY OUTLET INC
Address:1608 CAMPOSTELLA RD
Box:City:CHESAPEAKE
State:VA
ZIP:23324
Country:US
Phone:757-545-4442
Contract Num:SP0411-02-M-E109
CAGE:0FGN2
Company Name:JOHNSON CONTROLS INC/BATTERY GROUP
Address:591 MICHIGAN ST
Box:City:MILWAUKEE
State:WI
ZIP:53201
Country:US
Phone:414-228-2746
CAGE:1MN13

========== Compositi

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

Ingred Name:LEAD
CAS:7439-92-1
RTECS #:OF7525000
= Wt:34.
Other REC Limits:100 UG/M3(NIOSH)
OSHA PEL:50 UG/M3
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:31.
Other REC Limits:100 UG/M3 (NIOSH)
OSHA PEL:30 UG/M3
ACGIH TLV:150 UG/M3

Ingred Name:LEAD SULFATE
CAS:7446-14-2
RTECS #:OG4375000
= Wt:1.
Other REC Limits:100 UG/M3 (NIOSH)
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, (35%), BATTERY ELECTROLYTE (ACID)
CAS:7664-93-9
RTECS #:WS5600000
= Wt:34.
Other REC Limits:1 MG/M3 (NIOSH)
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 Identification ==========

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHALATION: ACID M

IST GENERATED DURING
BATTERY FORMATION MAY CAUSE RESPIRATORY IRRITATION. SPILLAGE OF ACID FROM BATTERIES IN CONFINED AREAS MAY ALSO LEAD TO EXPOSURE TO SULFURIC ACID MIST. SKIN CONTA CT: BATTERY ELECTROLYTE (ACID) MAY CAUSE IRRITATION, CONTACT DERMATITIS. SKIN ABSORPTION: SKIN ABSORPTION IS NOT A SIGNIFICANT ROUTE OF ENTRY. EYE CONTACT: BATTERY ELECTROLYTE (ACID) WILL IRRITATE TH E EYES UPON CONTACT. INGESTION: HANDS CONTAMINATED BY CONTACT WITH INTERNAL COMPONENTS

OF A BATTERY CAN CAUSE INGESTION OF LEAD/LEAD COMPOUNDS. HANDS SHOULD BE WASHED PRIOR TO EATING, DRINKING, OR SMO KING.

Explanation of Carcinogenicity:IARC HAS CLASSIFIED "STRONG INORGANIC ACID MIST CONTAINING SULFURIC ACID" AS A CATEGORY 1 CARCINOGEN. INORGANIC ACID MIST (SULFURIC ACID MIST) IS NOT GENERATED UNDER NORMAL USE OF THIS PRODUCT. MISUSE OF THE PRODUCT, SUCH AS OVERCHARGING, MAY HOWEVER RESULT IN THE GENERATION OF SULFURIC ACID MIST.

Effects of Overexposure

:ACUTE EFFECTS OF OVEREXPOSURE TO LEAD COMPOUNDS ARE: GI (GASTROINTESTINAL) UPSET WHICH MAY BE LOSS OF APPETITE, DIARRHEA AND/OR CONSTIPATION WITH CRAMPING, DIFFICULTY IN SLEEPING, AND FATIGUE. EXPOSUR E AND/OR CONTACT WITH BATTERY ELECTROLYTE (ACID) MAY LEAD TO ACUTE IRRITATION OF THE SKIN, CORNEAL DAMAGE OF THE EYES, AND IRRITATION OF THE MUCOUS MEMBRANES OF THE EYES AND UPPER RESPIRATORY SYSTEM I NCLUDING LUNGS. LEAD AND ITS COMPOUNDS MAY CAUSE CHRONIC ANEMIA, DAMA

GE TO THE KIDNEYS AND NERVOUS SYSTEM.
LEAD MAY ALSO CAUSE REPRODUCTIVE SYSTEM DAMAGE AND CAN AFFECT DEVELOPING FETUSES IN PREGNANT WOMEN.

Medical Cond Aggravated by Exposure:INORGANIC LEAD & ITS COMPOUNDS CAN AGGRAVATE KIDNEY, LIVER & NEUROLOGIC DISEASES. CONTACT OF BATTERY ELECTROLYTE WITH SKIN MAY AGGRAVATE SKIN DISEASES SUCH AS ECZEMA AND CONTACT DERMATITIS.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE A

ND CONSULT A PHYSICIAN IF
ADVERSE EFFECTS DEVELOP. SKIN: WASH WITH SOAP AND WATER. IF ACID IS SPLASHED ON CLOTHING, REMOVE AND DISCARD. IF ACID IS SPLASHED IN SHOES, REMOVE THEM AND DISCARD. ACID CANNOT BE REMOVED FROM LEATHER. EYES: RINSE WITH COOL RUNNING WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION. INGESTION: LEAD/LEAD COMPOUNDS: CONSULT A PHYSICIAN. ELECTROLYTE (ACID): DO NO INDUCE VOMITING. REFER TO A PHYSICIAN IMMEDIATELY.

========== Fir

e Fighting Measures ==========

Flash Point:=-259.C, -434.2F
H2
Autoignition Temp:=580.C, 1076.F
Autoignition Temp Text:H2
Lower Limits:4.1
Upper Limits:74.2
Extinguishing Media:DRY CHEMICAL, FOAM, OR CO2.
Fire Fighting Procedures:USE POSITIVE PRESSURE, SELF-CONTAINED
BREATHING APPARATUS.
Unusual Fire/Explosion Hazard:HYDROGEN AND OXYGEN GASES ARE PRODUCED IN
THE CELLS DURING NORMAL BATTERY OPERATION, HYDROGEN IS FLAMMABLE
AND OXYGEN SUPPORTS COMBUSTION. THESE GASES ENTER
THE AIR THROUGH
THE VENT CAPS. TO AVOID THE CHANCE OF A FIRE OR EXPLOSION, KEEP
SPARKS AND OTHER SOURCES OF IGNITION AWAY FROM THE BATTERY.

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

Spill Release Procedures:REMOVE COMBUSTIBLE MATERIALS AND ALL SOURCES
OF IGNITION. CONTAIN SPILL BY DIKING WITH SODA ASH OR QUICKLIME.
COVER SPILL WITH EITHER CHEMICAL. MIX WELL. MAKE CERTAIN MIXTURE IS
NEUTRAL THEN COLLECT R ESIDUE AND PLACE IN A DRUM OR OTHER SUITAB
LE
CONTAINER. DISPOSE OF AS HAZARDOUS WASTE. WEAR ACID RESISTANT
BOOTS, CHEMCIAL FACESHIELD, CHEMICAL SPLASH GOGGLES, AND ACID
RESISTENT GLOVES.
Neutralizing Agent:SODA ASH AND QUICKLIME.

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

Handling and Storage Precautions:AN EYEWASH FOUNTAIN AND SAFETY SHOWER
SHOULD BE LOCATED IN OR NEAR THE PRODUCTION OR STORAGE AREAS(S) FOR
LEAD/ACID BATTERIES. SUCH STORAGE AREAS SHOULD BE EQUIPPED WITH A
CONTAINMENT F
ACILITY WHICH C APTURES SPILLS OF ACID SO THAT THEY
MAY BE NEUTRALIZED, COLLECTED, AND DISPOSED OF PROPERLY.
Other Precautions:STORE LEAD/ACID BATTERIES WITH ADEQUATE VENTILATION;
ROOM VENTILATION IS REQUIRED FOR BATTERIES UTILIZED FOR STANDBY
POWER GENERATION. NEVER RECHARGE BATTERIES IN AN UNVENTILATED
SPACE. MAKE CERTAIN V ENT CAPS ARE ON TIGHTLY. PLACE A MINIMUM OF
TWO LAYERS OF CORRUGATED CARDBOARD BETWEEN (CONTD. SEE
"TOXICOLOGICAL")

========== Exposure Contro

ls/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 SUITABLE FOR PROTECTION AGAINST ACID MIST.
Ventilation:STORE LEAS/ACID BATTERIES WITH ADEQUATE VENTILATION. ROOM VENTILATION IS REQUIRED FOR BATTERIES UTILIZED FOR STANDBY POWER GENERATION.
Protective Gl
oves:VINYL COATED, PVC, GAUNTLET TYPE GLOVES WITH ROUGH FINISH.
Eye Protection:CHEMICAL SPLASH GOGGLES,VISOR-GOGS OR A CHEMICAL FACESHIELD OVER SAFETY GLASSES
Other Protective Equipment:SAFETY SHOES WORN WITH RUBBER/NEOPRENE BOOTS OR STEEL-TOED RUBBER/NEOPRENE BOOTS TO BE WORN OVER SOCKS. PLACE PANTS LEGS OVER BOOTS TO KEEP ACID OUT OF BOOTS.
Work Hygienic Practices:AN EYEWASH FOUNTAIN AND SAFETY SHOWER SHOULD BE LOCATED IN OR NEAR THE PRODUCTION OR STORAGE AREAS(S) FOR LEAD/
ACID
BATTERIES.
Supplemental Safety and Health
VENDOR, B ATTERY OUTLET INC (CAGE 0FGN2) P/N: 31P-PHD.

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

HCC:C1
Boiling Pt:=1755.C, 3191.F
B.P. Text:LEAD
Melt/Freeze Pt:=327.4C, 621.3F
M.P/F.P Text:LEAD
Vapor Pres:11.7MM HG (ACID)
Vapor Density:3.4ACID
Spec Gravity:1.210-1.300 ACID
Evaporation Rate & Reference:NOT DETERMINED
Solubility in Water:100% ACID SOLUBILITY.
Appearance and Odor:BATTERY ELECTROLYTE (ACID) IS A C
LEAR TO CLOUDY
LIQUID WITH SLIGHT ACIDIC ODOR.

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

Stability Indicator/Materials to Avoid:YES
LEAD/ACID COMPOUNDS: POTASSIUM, CARBIDES, SULFIDES, PEROXIDES, PHOSPHORUS SULFUR. BATTERY ELECTROLYTE (ACID): COMBUSTIBLE MATERIALS, STRONG REDUCING AGENTS, MOST METALS, CARBIDES, ORGANIC MATERIALS, CHLORATES, NITRATES, PIC
Stability Condition to Avoid:SPARKS AND OTHER SOURCES OF IGNITION MAY IGNITE HYDROGEN GAS. HIGH

TEMPERATURE. BATTERY ELECTROLYTE(ACID)
WILL REACT WITH WATER TO PRODUCE HEAT.
Hazardous Decomposition Products:LEAD/LEAD COMPOUNDS: OXIDES OF LEAD AND SULFUR. BATTERY ELECTROLYTE (ACID): HYDROGEN, SULFUR DIOXIDE, SULFUR TRIOXIDE.
Conditions to Avoid Polymerization:WILL NOT OCCUR. HIGH TEMP. BATTERY ACID WILL REACT WITH WATER TO PRODUCE HEAT. CAN REACT WITH OXIDIZING/REDUCING AGENTS.

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

Toxicological Information
:(CONTD. FROM "OTHER PRECAUTIONS") LAYERS OF BATTERIES. WHEN STACKING IN TRAILER, STACK NO MORE THAN THREE LAYERS HIGH. USE A BATTERY CARRIER TO LIFT A BATTERY OR PLACE HANDS AT OPPOSITE CORNERS TO AVO ID SPILLING ACID THROUGH THE VENTS. AVOID CONTACT WITH INTERNAL COMPONENTS OF THE BATTERIES.

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

Ecological:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Waste Disposal Methods:BATTERY ELECTROLYTE (ACID): NEUTRALIZE AS ABOVE FOR A SPILL, COLLECT RESIDUE & PLACE IN A DRUM OR SUITABLE CONTAINER. DISPOSE OF AS HAZARDOUS WASTE. DO NOT FLUSH LEAD CONTAMINATED ACID TO SEWER. BATT ERIES: SENT TO LEAD SMELTER FOR RECLAMATION FOLLOWING APPLICABLE FEDERAL, STATE & LOCAL REGULATIONS.

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

Transport Information:DOT, IATA, AND IMO: BATTERY, WET, FILLED WITH ACID, UN27
94, CLASS 8.

========== 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 ==========

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