

JOHNSON CONTROLS GLOBE BATTERY -- 29H-30-H-VHD, LEAD ACID BATTERY

MSDS Safety Information

FSC: 6140

NIIN: 01-319-5566

MSDS Date: 06/02/2000

MSDS Num: CLCGP

Product ID: 29H-30-H-VHD, LEAD ACID BATTERY

MFN: 01

Article: Y

Responsible Party

Cage: 25244

Name: JOHNSON CONTROLS INC GLOBE BATTERY DIV

Address: 5757 N

GREEN BAY AVE

Box: 591

City: MILWAUKEE WI 53201

Info Phone Number: 800-333-222X3138/ 414-228-1200

Emergency Phone Number: 800-333-222X3138

Resp. Party Other MSDS No.: L 8

Item Description Information

Item Manager: S9G

Item Name: BATTERY,STORAGE

Unit of Issue: EA

UI Container Qty: 1

Type of Container: UNKNOWN

Regulated Component

s

Regulated Component Name: LEAD DIOXIDE: LEAD OXIDE

CAS: 1309-60-0

Percent Text: 31%

Regulated Component Name: LEAD SULFATE: ANGIESTIC

CAS: 7446-14-2

Regulated Component Name: SULFURIC ACID, 35%: BATTERY ELECTROLYTE

CAS: 7664-93-9

Percent Text: 34%

Regulated Component Name: LEAD: GRID

CAS: 7439-92-1

Percent Text: 34%

Health Hazards Data

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Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity Inds - NTP: YES

IARC: YES

Effects of Exposure: INHALTION: ACID MIST GENERATED DURING BATTERY FORMATION MAY CAUSE RESPIRATORY IRRITATION. SPILLAGE OF ACID FROM BATTERIES IN CONFINED AREAS MAY ALSO LEAD TO EXPOSURE OF SULFURIC ACID MIST. SKIN: BATTE RY ELECTROLYTE (ACID) MAY CAUSE IRRITATIVE CONTACT DERMATITIS. SKIN: NOT A SIGNIFICANT ROUTE OF ENTRY. EYE: BATTERY ELECTROLYTE (ACID) WILL IRRITATE THE

EYES UPON CONTACT. INGESTION: HANDS CONTAMINATE D BY CONTACT WITH INTERNAL COMPONENTS OF A BATTERY VAN CAUSE INGESTION OF LEAD/LEAD COMPOUNDS. HANDS SHOULD BE WASHED PRIOR TO EATING, DRINKING, OR SMOKING.

Signs And Symptions Of Overexposure: ACUTE EFFECTS TO LEAD COMPOUNDS ARE GASTROINTESTINAL UPSET, LOSS OF APPETITE, DIARRHEA, CONSTIPATION WITH CRAMPTING, DIFFICULTY IN SLEEPING & FATIGUE. EXPOSURE &/OR CONTACT WITH BATTERY ELECTROLYTE (A CID) MAY LEAD TO ACUTE IRRITATION OF TH

ESKIN, CORNEAL DAMAGE OF EYES, IRRITATION OF THE MUCOUS MEMBRANES OF THE EYES & UPPER RESPIRATORY SYSTEM, INCLUDING LUNGS. CHRONIC: LEAD & ITS COMPOUNDS MAY CAUS E ANEMIA, DAMAGE TO KIDNEYS & NERVOUS SYSTEM. LEAD MAY ALSO CAUSE REPRODUCTIVE SYSTEM DAMAGE & CAN AFFECT DEVELOPING FETUSES IN PREGNANT WOMEN. BATTERY ELECTROLYTE(ACID) MAY LEAD TO SCARRING OF THE CO RNEA, CHRONIC BRONCHITIS.

Medical Cond Aggravated By Exposure: INORGANIC LEAD & ITS COMPOUNDS CAN AGGRA

VATE CHRONIC FORMS OF KIDNEY, LIVER, & NEUROLOGICAL DISEASE. CONTACT OF BATTERY ELECTROLYTE (ACID) WITH SKIN MAY AGGRAVATE ECZEMA & CONACT DERMATITIS.

First Aid: INHALTION: REMOVE FROM EXPOSURE AND CONSULT PHYSICIAN IF ANY OF ACUTE EFFECTS LISTED DEVELOPS. SKIN: WASH THOROUGHLY WITH SOAP AND WATER. IF ACID IS SPLASHED ON CLOTHING, REMOVE AND DISCARD. IF ACID I S SPLASHED IN SHOES, REMOVE THEM IMMEDIATELY AND DISCARD. ACID CANNOT BE REMOVED FROM LEATHER. EYE: IMMEDIATELY RINSE WITH COOL RUNNING WTER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION AFTER RINSI NG. INGESTION: LEAD/LEAD COMPOUNDS: CONSULT A PHYSICIAN. BATTERY ELECTROLYTE (ACID): DO NOT INDUCE VOMITING. REFER TO A PHYSICIAN IMMEDIATELY.

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Handling and Disposal

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Spill Release Procedures: REMOVE COMBUSTIBLE MATERIALS/IGNITION SOURCES. CONTAIN SPILL BY DIKING WITH SODA ASH (SODIUM CARBONATE) O

R QUICKLIME(CALCIUM OXIDE). COVER SPILL WITH EITHER CHEMICAL. MIX WELL. MAKE CERTAIN THE MIX IS NEUTRAL, COLLECT RESIDUE IN A DRUM OR OTHER SUITABLE CONTAINER. DISPOSE OF AS A HAZARDOUS WASTE. WEAR ACID-RESISTANT BOOTS, CHEMICAL FACE SHIELD, CHEMICAL SPLASH GOGGLES, & ACID-RESISTANT GLOVES.

Neutralizing Agent: SODA ASH (SODIUM CARBONATE) OR QUICKLIME(CALCIUM OXIDE). COVER SPILL WITH EITHER CHEMICAL. MIX WELL.

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

Handling And Storage Precautions: STORE LEAD ACID BATTERIES WITH ADEQUATE VENTILATION. WEAR RECOMMENDED EYE PROTECTION. IF CLOTHING BECOMES SATURATED WITH ACID, REMOVE AND WASH AFFECTED AREA WITH WATER FOR 15 MINUTES. DISCARDED SATURATED CLOTHING.

Other Precautions: AN EYEWASH FOUNTAIN & SAFETY SHOWER SHOULD BE LOCATED IN OR NEAR THE PRODUCTION OR STORAGE AREA(S) FOR LEAD/LEAD ACID BATTERIES. SUCH STORAGE AREAS SHOULD BE EQUIPPED WITH A CONTAINMENT FACILITY WHICH CAPTURES ACID SPILLS SO THAT THEY MAY BE NEUTRALIZED, COLLECTED, & DISPOSED OF PROPERLY.

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#### Fire and Explosion Hazard Information

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Flash Point: =269.C, 516.2F  
Flash Point Text: HYDROGEN  
Autoignition Temp: =580.C, 1076.F  
Autoignition Temp Text: HYDROG  
Lower Limits: 4.1, H2  
Upper Limits: 74.2, H2  
Extinguishing Media: DRY CHEMICAL, FOAM, OR CO2.  
Fire Fighting Procedures: USE POSITIVE PRESSURE SELF CONTAINED BREATHING APPARATUS.  
Unusual Fire/Explosion Hazard: HYDROGEN & OXYGEN GASES ARE PRODUCED IN THE CELLS DURING NORMAL OPERATION, HYDROGEN IS FLAMMABLE & OXYGEN SUPPORTS COMBUSTION. THESE GASES ENTER THE AIR THROUGH THE VENT CAPS. TO AVOID THE CHANCE OF A FIRE OR EXPLOSION, KEEP SPARKS & OTHER SOURCES OF IGNITION AWAY FROM THE BATTERY.

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#### Control Measures

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Respiratory Protection: NONE REQUIRED UNDER NORMAL HANDLING CONDITIONS. DURING BATTERY FORMATION (HIGH-RATE CHARGE CONDITIONS), ACID MIST CAN BE GENERATED, WHICH MAY CAUSE RESPIRATORY IRRITATION. IF IRRITATION OCCURS, WEAR A

RESPIRATOR SUITABLE FOR PROTECTION AGAINST ACID MIST

Ventilation: ROOM VENTILATION IS REQUIRED FOR BATTERIES UTILIZED FOR STANDBY POWER GENERATION. NEVER RECHARGE BATTERIES IN AN UNVENTILATED, ENCLOSED SPACE.

Protective Gloves: VINYL-COATED, PVC, GAUNTLET=TYPE GLOVES WITH ROUGH FINISH.

Eye Protection: CHEMICAL SPLASH GOGGLES ARE PREFERRED.

Other Protective Equipment: ALSO ACCEPTABLE ARE "VISOR-GOGS" OR A CHEMICAL FACE SHIELD WORN OVER SAFETY GLASSES WITH SOLID SIDE SHIELD. "SEE OTHER

INFORMATION"

Work Hygienic Practices: WASH HANDS THOROUGHLY BEFORE EATING, DRINKING, OR SMOKING AFTER HANDLING BATTERIES. "SEE OTHER INFORMATION"

Supplemental Safety and Health: CHEMICAL/TRADE NAME: LEAD ACID BATTERY.

CHEMICAL FAMILY/CLASSIFICATION: ELECTRIC STORAGE BATTERY. SYNONYMS/COMMON NAME: SLI BATTERY. \* RATING FOR SULFURIC ACID: 3, 0, 2, X.

Physical/Chemical Properties

HC

C: C1

Boiling Point: =1755.C, 3191.F

B.P. Text: LEAD

Melt/Freeze Pt: =327.4C, 621.3F

M.P/F.P Text: LEAD

Decomp Text: UNKNOWN

Vapor Pres: 11.7, ACID

Vapor Density: 3.4, ACID

Spec Gravity: 1.210-1.300 (ACID)

Evaporation Rate & Reference: NOT DETERMINED

Solubility in Water: LEAD/ACID SOLUBLE

Appearance and Odor: ACID: CLEAR TO CLOUDY LIQUID; SLIGHT ACIDIC ODOR. LEAD OXIDE

Corrosion Rate: UNKNOWN

Reactivity Data

Stability Indicator: YES MINATES.

Stability Condition To Avoid: SPARKS AND OTHER SOURCES OF IGNITION MAY IGNITE HYDROGEN GAS.

Materials To Avoid: LEAD/LEAD COMPOUNDS: POTASSIUM, CARBIDES, SULFIDES, PEROXIDES, PHOSPHORUS, SULFUR. BATTERY ACID: COMBUSTIBLE MATERIALS, STRONG REDUCING AGENTS, MOST METALS, CARBIDES, ORGANIC MATERIALS, CHLORATES, NITRATES, PICRATES, AND FU

Hazardous Decomposition Products: LEAD/LEAD COMPOUNDS: OXIDES OF LEAD AND SULFUR. BATTERY

ELECTROLYTE (ACID): HYDROGEN, SULFUR DIOXIDE, SULFUR  
TRIOXIDE.

Hazardous Polymerization Indicator: NO

Conditions To Avoid Polymerization: HIGH TEMPERATURE. ACID WILL REACT EITH  
WATER TO PRODUCE HEAT. CAN REACT WITH OXIDIZING OR REDUCING AGENT.

Toxicological Information

Ecological Information

MSDS Transport Information

Transport Information: DOT, IATA AND IMO DESCRIPTION: BATTERY, WET, FILLED WITH  
ACID, UN2794, CLASS 8.

Regulatory Information

Sara Title III Information: NOTE: THE CONTENTS OF THIS PRODUCT ARE TOXIC  
CHEMICALS THAT AR S  
UBJECT TO THE REPORTING REQUIREMENTS OF SECTION 302 AND  
313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOWN ACT OF 1986 (40CFR  
35 5 AND 372).

Other Information

Other Information: \*SAFETY SHOES WORN WITH RUBBER OR NEOPRENE BOOTS OR  
STEEL-TOED RUBBER OR NEOPRENE BOOTS WORN OVER SOCKS. PLACE PANTS LEGS OVER  
BOOTS TO KEEP ACID OUT OF BOOTS. ALL FOOTWARE MUST MEET REQUIREMEN  
TS OF A  
NSIZ41.1-REV.1972. \*DO NOT RELEASE UNNEUTRALIZED ACID! \*\*MAKE CERTAIN VENT  
CAPS ARE ON TIGHTLY. PLACE A MINIMUM OF TWO LAYERS OF CORRUGATED CARDBOARD  
BETWEEN LAYERS OF BATTERIES. WHEN STACKING IN TRAI LERS, STCK 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 THE VENTS. AVOID CONTACT WITH  
INTERNAL COMPONETS OF BAT TERY.

Transportation I

nformation  
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Responsible Party Cage: 25244  
Trans ID NO: 156829  
Product ID: 29H-30-H-VHD, LEAD ACID BATTERY  
MSDS Prepared Date: 06/02/2000  
Review Date: 04/25/2001  
MFN: 1  
Multiple KIT Number: 0  
Review IND: Y  
Unit Of Issue: EA  
Container QTY: 1  
Type Of Container: UNKNOWN

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Detail DOT Information  
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DOT PSN Code: BQN  
DOT Proper Shipping Name: BATTERIES, WET, FILLED WITH ACID  
DOT PSN Modifier: ELECTRIC STORAGE  
Hazard Class: 8  
UN ID Num: UN2794  
DOT Packaging Group: III  
Label: CORROSIVE  
Non Bulk Pack: 159  
Bulk Pack: 159  
Max Qty Pass: 30 KG GRO  
Max Qty Cargo: NO LIMIT  
Vessel Stow Req: A

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Detail IMO Information  
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IMO PSN Code: BWD  
IMO Proper Shipping Name: BATTERIES, WET, FILLED WITH ACID  
IMO PSN Modifier: ELECTRIC STORAGE  
IMDG P  
Hazard Class Number: 8120  
UN Number: 2794  
UN Hazard Class: 8  
IMO Packaging Group: III  
Subsidiary Risk Label: -  
EMS Number: 8-10  
MED First Aid Guide NUM: 700

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Detail IATA Information  
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IATA PSN Code: CZM  
IATA UN ID Num: 2794  
IATA Proper Shipping Name: BATTERIES, WET, FILLED WITH ACID,  
IATA PSN Modifier: ELECTRIC STORAGE +  
IATA UN Class: 8  
IATA Label: CORROSIVE  
UN Packing Group: III  
Packing Note Pa

ssenger: 800  
Max Quant Pass: NO LIMIT  
Max Quant Cargo: NO LIMIT  
Packaging Note Cargo: 800  
Exceptions: A51

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Detail AFI Information

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AFI PSN Code: CZM  
AFI Proper Shipping Name: BATTERIES, WET, FILLED WITH ACID  
AFI PSN Modifier: ,ELECTRIC STORAGE  
AFI Hazard Class: 8  
AFI UN ID NUM: UN2794  
AFI Packing Group: III  
Special Provisions: P5  
Back Pack Reference: A12.5

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HAZCOM Label

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Product ID: 29H-30-H-VHD, LEAD ACID BATTERY  
Cage: 25244  
Company Name: JOHNSON CONTROLS INC GLOBE BATTERY DIV  
Street: 5757 N GREEN BAY AVE  
PO Box: 591  
City: MILWAUKEE WI  
Zipcode: 53201  
Health Emergency Phone: 800-333-2222X3138  
Label Required IND: Y  
Date Of Label Review: 04/25/2001  
Status Code: A  
Origination Code: F  
Chronic Hazard IND: Y  
Eye Protection IND: YES  
Skin Protection IND: YES  
Signal Word: DANG  
ER  
Respiratory Protection IND: YES  
Health Hazard: Severe  
Contact Hazard: Severe  
Fire Hazard: None  
Reactivity Hazard: Moderate  
Hazard And Precautions: INHALTION: ACID MIST GENERATED DURING BATTERY FORMATION  
MAY CAUSE RESPIRATORY IRRITATION. SPILLAGE OF ACID FROM BATTERIES IN CONFINED  
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