

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

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MSDS Safety Information
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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: 800-333-2222X3138
Resp. Party Other MSDS No.: L 8

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Item Description Information
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Item Manager: S9G
Item Name: BATTERY,STORAGE
Unit of Issue: EA
UI Container Qty: 1
Type of Container: UNKNOWN

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Regulated Component
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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%

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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 T

HESKIN,

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 AGGR

AVATE 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 RINS

E 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)

OR 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

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CC: 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. BATTER

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

Hazardous Polymerization Indicator: NO

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

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

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Regulatory Information
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Sara Title III Information: NOTE: 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 (40CFR 35.5 AND 372).

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Other Information
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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 FOOTWEAR MUST MEET REQUIREMENTS OF ANSI Z41.1-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 TRAILERS, 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 THE VENTS. AVOID CONTACT WITH INTERNAL COMPONENTS OF BATTERY.

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Transportation

Information

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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
Page 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 P

assenger: 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: DAN
GER
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
AREAS MAY ALSO LEAD TO EXPOSURE OF SULFURIC ACID MIST. SKIN: BATTE RY
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