

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

Product ID:GUARDIAN SEALED LEAD/ACID BATTERY

MSDS Date:03/01/1993

FSC:6140

NIIN:01-174-7249

MSDS Number: BWGLZ

=== Responsible Party ===

Company Name:DOUGLAS BATTERY MFG CO

Address:500 BATTERY DR

Box:12159

City:WINSTON-SALEM

State:NC

ZIP:27117

Country:US

Info Phone Num:800-368-4527

Emergency Phone Num:919-650-7000 800-368-4527

Preparer's Name:A.

L. CSONTOS

CAGE:63432

=== Contractor Identification ===

Company Name:ARJAY ELECTRONICS CORP

Address:525 W CHESTER PIKE SUITE 314

Box:City:HAVERTOWN

State:PA

ZIP:19083-4539

Country:US

Phone:215-449-3600

CAGE:64812

Company Name:DOUGLAS BATTERY MFG CO

Address:500 BATTERY DR

Box:12159

City:WINSTON-SALEM

State:NC

ZIP:27107

Country:US

Phone:800-368-4527

CAGE:63432

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

Ingred Name:LEAD (SARA III)

CAS:7439-92-1

RTECS #:OF7525000

Fracti

on by Wt: 60-70%
OSHA PEL:SEE 1910.1025
ACGIH TLV:0.15 MG/M3;DUST 9394
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:ARSENIC (ORGANIC COMPOUNDS) (SARA III)
CAS:7440-38-2
RTECS #:CG0525000
Fraction by Wt: < 1%
OSHA PEL:SEE 1910.1018
ACGIH TLV:0.01 MG/M3, A1; 9394
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:CALCIUM, METAL
CAS:7440-70-2
RTECS #:EV8040000
Fraction by Wt: < 0.15%

Ingred Name:SULFURIC ACID (SARA III)
CAS:7664-93-9
RTECS #:WS5600000
Fraction by Wt: 20-30%
OSHA PEL:1 MG/M3
ACGIH T
LV:1 MG/M3; 9394
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:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:ONLY DAMAGE TO THE BATTERY CASE WILL
RESULT IN EXPOSURE TO SULFURIC ACID AND/OR LEAD. ACUTE LEAD
EXPOSURE MAY CAUSE CONSTIPATION, VOMITING, BLUE LINE ON GUMS, WEAK
WRISTS/ANKLES, WEIGHT LOSS, YELLOW S KIN. CHRON
IC OVEREXPOSURE MAY
CAUSE IRRITABILITY, METALLIC TASTE, INSOMNIA, KIDNEY OR CNS
EFFECTS. (SEE SIGNS FOR H2SO4)
Explanation of Carcinogenicity:LEAD AND/OR LEAD COMPOUNDS ARE LISTED AS
CARCINOGENS BY IARC AND NTP. SEE INDIVIDUAL REPORTS FOR DETAILS.
Effects of Overexposure:ACUTE SULFURIC ACID EXPOSURE MAY CAUSE SEVERE
BURNS TO THE TISSUES CONTACTED, ULCERATION, DAMAGE TO KIDNEYS, G/I
TRACT. CHRONIC EXPOSURE MAY CAUSE EROSION OF TEETH, RESPIRATORY
INFLAMATION.
Medical Cond

Aggravated by Exposure:RESPIRATORY EXPOSURE TO AIRBORNE
SULFURIC ACID WILL AGGRAVATE LUNG DAMAGE OR OTHER PULMONARY
CONDITIONS. HARMFUL EFFECTS OF LEAD ARE INCREASED FOR THOSE
W/DIETARY DEFICIENCIES IN CALCIUM, IRON & ZINC.

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

First Aid:IF IRRITATION OR SYMPTOMS PERSIST OR ARE SEVERE, SEE A
DOCTOR. EYE:FLUSH W/WATER 15 MIN, HOLD LIDS OPEN. SKIN:WASH WITH
SOAP & WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRER
BEFORE
REUSE. INHALED:RE MOVE TO FRESH AIR. AID/RESTORE BREATHING IF
NECESSARY. INGESTED:DO NOT INDUCE VOMITING. GIVE 2 LARGE GLASSES OF
MILK OR WATER TO DILUTE & GET IMMEDIATE MEDICAL CARE. NOTHING BY
MOUTH IF UNCONSCIOUS.

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

Flash Point Method:CC
Flash Point:675F,357C
Extinguishing Media:HALON, DRY CHEMICAL.
Fire Fighting Procedures:EXTINGUISH FIRE W/AGENT SUITABLE FOR
SURROUNDING COMBUSTIBLE MATERIALS. CO
OL EXTERIOR OF FIRE EXPOSED
BATTERY TO PREVENT RELEASE OF LEAD COMPOUNDS & FUMES.
Unusual Fire/Explosion Hazard:NONE

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

Spill Release Procedures:WILL NOT OCCUR UNLESS SEALED CASE IS DAMAGED.
PICK UP & CONTAINERIZE ALL BATTERY PARTS & MATERIALS. LIMIT
PERSONAL EXPOSURE W/GLOVES, EYE & FACE PROTECTION. NEUTRALIZE
SULFURIC ACID/ELECTROLYTE W/LIME , SODA ASH OR SODIUM BICARBONATE.
Neutralizing Agent:LIME, SODA ASH OR
SODIUM BICARBONATE

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

Handling and Storage Precautions:EXERCISE CAUTION IN NORMAL HANDLING
AND STORAGE DUE TO WEIGHT OF UNITS.
Other Precautions:DO NOT ALLOW METAL OR OTHER CONDUCTIVE MATERIAL TO
SHORT CIRCUIT TERMINALS. HEAT, SPARKS, DAMAGE TO ELECTRICAL
CIRCUITS, AND FIRE POTENTIAL MAY RESULT FROM SHORT CIRCUITING.

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

Respiratory Protection:IF PRODUC

T IS INVOLVED IN FIRE, RELEASE OF DUST
OR FUMES FROM DAMAGED CASES MAY RESULT. USE OF NIOSH/MSHA APPROVED
SCBA, FULL FACE OR HALF-MASK RESPIRATOR WITH HEPA CARTRIDGE WOULD
BE RECOMMENDED.

Ventilation:NONE SPECIFIED BY MANUFACTURER.

Protective Gloves:LEATHER OR OTHER PROTECTIVE GLOVES.

Eye Protection:SAFETY GLASSES,FACE SHIELD,GOGGLES

Other Protective Equipment:MFR GAVE NO INFORMATION ON MSDS.

Work Hygienic Practices:PRACTICE GOOD HYGIENE TO MINIMIZE PERSONAL
EXPOSURE.

Supplementa

I Safety and Health

NONE

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

HCC:N1

NRC/State Lic Num:NONE

Melt/Freeze Pt:M.P/F.P Text:>320F,>160C

Spec Gravity:13

Appearance and Odor:RECTANGULAR POLYPROPYLENE OR POLYSTYRENE CASE WITH
LEAD TERMINALS.

Percent Volatiles by Volume:NONE

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

Stability Indicator/Materials to Avoid:YES

KEEP BATTERY CASE AWAY FROM STRONG OXIDIZERS, SOLVENTS.

Stability Condition to Av

oid:MFR GAVE NO INFORMATION ON MSDS.

Hazardous Decomposition Products:NONE

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:BATTERY AND PARTS MAY BE RECYCLED BY EPA
PERMITTED SECONDARY LEAD SMELTING FACILITY OR DISPOSE OF AS
HAZARDOUS WASTE PURSUANT TO RCRA REQUIREMENTS. HMIS:DISPOSE OF
I/A/W FEDERAL, STATE & LOCAL REGU LATIONS.

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ng agencies):

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