

ADVANTAGE BATTERY CORPORATION -- BATTERIES, AUTOMOTIVE, COMMERCIAL AND INDUSTRIAL -- 6140-01-203-8982

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

Product ID:BATTERIES, AUTOMOTIVE, COMMERCIAL AND INDUSTRIAL

MSDS Date:10/03/1994

FSC:6140

NIIN:01-203-8982

Status Code:A

MSDS Number: CJPTB

=== Responsible Party ===

Company Name:ADVANTAGE BATTERY CORPORATION

Address:8701 BEDFORD-EULESS RD SUITE 501

City:HURST

St

ate:TX

ZIP:76053

Country:US

Info Phone Num:800-367-1407

Emergency Phone Num:800-367-1407

CAGE:0VW59

=== Contractor Identification ===

Company Name:CELL ENERGY INC

Address:3190-B ORANGE GROVE AVE

Box:City:NORTH HIGHLANDS

State:CA

ZIP:95660-5706

Country:US

Phone:916-484-7974

Contract Num:SP0430-99-MAR49

CAGE:1U269

Company Name:GES AMERICA (FORMERLY) ADVANTAGE BATTERY CORP

Address:7001 GRAPEVINE HIGHWAY 500

Box:City:NORTH RICHLAND HILLS

State:TX

ZIP:76180

Country:US

Phone:817-589-1225

CAGE:0VW59

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

Ingred Name:SULFURIC ACID (SARA III)

CAS:7664-93-9

RTECS #:WS5600000

Minumum % Wt:30.

Maxumum % Wt:38.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9293

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

===== Hazards Identification =====

LD50 LC50 Mixture:LD50 (ORAL RAT) IS 2140 MG/KG (H2SO4)

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity

:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: CONTACT CAUSES SEVERE BURNS TO ALL TISSUES INCLUDING EYES AND SKIN. INHALATION: CAUSES SEVERE IRRITATION OF RESPIRATORY TRACT. INGESTION:CAUSES SEVERE BURNS AND ULCERATION. CHRONIC: TOOTH EROSI ON, INFLAMMATION OF NOSE, THROAT AND BRONCHIAL TUBES.

Explanation of Carcinogenicity:THE ELECTROLYTE IS NOT LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

Effects of Overexposure:INHALATION: BURNING SENSATION IN NOSE, TH ROAT

AND LUNGS, COUGHING, WHEEZING, SHORTNESS OF BREATH. EYES: REDNESS, TEARING, BLURRED VISION, BURNS, SEVERE PAIN. SKIN: SEVERE PAIN, BURNS, REDNESS, RASH, I TCHING. INGESTION: BURNS OF MOUTH, THROAT, AND ESOPHAGUS, SEVERE STOMACH PAIN, NAUSEA, VOMITING.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF AILMENTS OR WITH A PRE-EXISTING DISEASE INVOLVING THE RESPIRATORY TRACT OR TEETH MAY BE AT INCREASED RISK FROM EXPOSURE.

===== First Aid

Measures =====

First Aid:INHALATION:REMOVE TO FRESH AIR. RESUSCITATE IF NOT BREATHING. GET MEDICAL ATTENTION. EYES:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES HOLDING EYELIDS OPEN. GET PROMPT MEDICAL ATTENTION. SKIN:REMOVE C ONTAMINATED CLOTHING. WASH WITH WATER FOR 15 MINUTES. GET MEDICAL ADVICE. INGESTION:DO NOT INDUCE VOMITING. IF CONSCIOUS, DRINK LARGE AMOUNTS OF WATER. GET IMMEDIATE MEDICAL ATTENTION.

===== Fire Fighting Measur

es =====

Extinguishing Media:USE DRY CHEMICAL, CARBON DIOXIDE, FOAM.  
Fire Fighting Procedures:USE OF WATER IN EXTINGUISHING BURNING  
BATTERIES MAY CAUSE SPATTERING DUE TO THE PRESENCE OF MOLTEN LEAD.  
WEAR SCBA AND FULL PROTECTIVE GEAR.  
Unusual Fire/Explosion Hazard:AFTER ELECTROLYTE IS ADDED AND BATTERY IS  
BEING CHARGED, HYDROGEN GAS IS PRODUCED. BATTERY MAY EXPLODE IF  
HYDROGEN GAS TRAPPED INSIDE THE CASE SHOULD IGNITE.

===== Accidental Release Mea  
sures =====

Spill Release Procedures:SHOULD A BATTERY BREAK OPEN, ISOLATE AREA.  
ELECTROLYTE SHOULD BE ABSORBED WITH A NON-ORGANIC TYPE ABSORBENT  
SUCH AS DRY SAND OR EARTH. AVOID DILUTION WITH WATER. LEAD SPILLED  
FROM THE BATTERY SHOULD B E VACUUMED, DO NOT SWEEP OR USE  
COMPRESSED AIR.  
Neutralizing Agent:USE SODA ASH OR BAKING SODA TO NEUTRALIZE THE  
ELECTROLYTE.

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

Handling and Storage Precaution  
s:STORE IN A WELL VENTILATED AND COOL  
AREA. DO NOT OVERCHARGE OR PHYSICALLY DAMAGE BATTERIES. HANDLE WITH  
CARE TO AVOID OVERTURNING OR DAMAGING BATERIES. STORE AWAY FROM  
OPEN FLAMES AND FLAMMABLES. HYDR OGEN PRODUCED DURING CHRAGING IS  
FLAMMABLE AND EXPLOSIVE.  
Other Precautions:UNDER NORMAL CONDITIONS OF USE, EXPOSURE TO LEAD OR  
LEAD CONTAINING COMPOUNDS DOES NOT OCCUR. SHOULD A BATTERY BREAK  
OPEN AND A LEAK OCCURS, SAFETY GLASSES, ACID-RESISTANT GLOVES OR  
ACID RESIST  
ANT CLO THING MUST BE WORN.

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

Respiratory Protection:UNDER NORMAL CONDITIONS OF USE, RESPIRATORY  
PROTECTION IS NOT REQUIRED. HOWEVER, IF CONDITIONS ARISE THAT  
REQUIRE THEIR USE, USE ONLY NIOSH/MSHA RESPIRATORS APPROVED FOR  
DUST, FUME AND MIST.  
Ventilation:BATTERY CHARGING AREAS MUST BE ADEQUATELY VENTILATED TO  
PREVENT HAZARDOUS CONCENTRATIONS OF FLAMMABLE GAS OR ACID MIST.  
Protective Gloves:RUBBER GLOVES APPROVED

FOR SULFURIC ACID

Eye Protection:CHEMICAL SPLASH GOGGLES AND FACE SHIELD

Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER.

INDUSTRIAL-TYPE IMPERVIOUS WORK CLOTHING, BOOTS AND APRON AS  
REQUIRED.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND  
RECOMMENDED PROCEDURES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

MSDS FROM MANUFACTURER WAS STRICTLY FOR SULFURIC ACID; PHYSICAL  
CHARACTERISTICS IN MSDS ARE FOR SULFURIC ACID

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

HCC:C1

Boiling Pt:=95.C, 203.F

Vapor Pres:10 MM HG

Vapor Density:>1

Spec Gravity:>1.24 TO 1.28

pH:1

Evaporation Rate & Reference: