

GP BATTERIES INTERNATIONAL LTD. -- GP23A, ALKALINE HIGH VOLTAGE BATTERY --
4220-01-372-5191

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

Product ID:GP23A, ALKALINE HIGH VOLTAGE BATTERY

MSDS Date:02/11/1997

FSC:4220

NIIN:01-372-5191

Status Code:A

MSDS Number: CKGNS

=== Responsible Party ===

Company Name:GP BATTERIES INTERNATIONAL LTD.

Address:GPI BUILDING, 30-34 KWAI WING ROAD

City:KWAI CHUNG, N.T., HONG KO
NG

Country:HK

Info Phone Num:852 480 3991

Emergency Phone Num:852-480-3991

Preparer's Name:A. GAMBRELL

CAGE:TO574

=== Contractor Identification ===

Company Name:GP BATTERIES (USA)

Address:11235 W. BERNARDO CT

City:SAN DIEGO

State:CA

ZIP:92127

Country:US

Phone:619-674-5620 FX:619-674-7237

CAGE:TO575

Company Name:GP BATTERIES INTERNATIONAL LTD.

Address:GPI BUILDING, 30-34 KWAI WING ROAD

City:KWAI CHUNG, N.T., HONG KONG

Country:HK

Phone:852 480 3991

CAGE:TO574

Company Name:PRO BATTERY CO INC

Address:

s:3941 OAKCLIFF INDUSTRIAL CT

Box:City:ATLANTA

State:GA

ZIP:30340-3408

Country:US

Phone:770-449-5900

Contract Num:SP0760-98-M-T012

CAGE:5X783

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

Ingred Name:MANGANESE DIOXIDE

CAS:1313-13-9

RTECS #:OP0350000

Minimum % Wt:16.8

Maximum % Wt:18.9

OSHA PEL:C5 MG/M3

ACGIH TLV:5 MG/M3

Ingred Name:MERCURY

Rpt Qty:1 LB

Ingred Name:ZINC
CAS:7440-66-6
RTECS #:ZG8600000
Minumum % Wt:4.8
Maxumum % Wt:5.6
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:SODIUM HYDROXIDE AND POTASSIUM HYDROXIDE MIXTURE (30-35%
SOLUTION)
Minumum % Wt:6.4
Maxumum % Wt:6.6

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

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Effects of Overexposure:IN CASE OF ELECTROLYTE LEAKAGE, SKIN WILL
BE
ITCHY WHEN CONTAMINATED BY ELECTROLYTE.

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

First Aid:IF ELECTROLYTE LEAKAGE OCCURS AND MAKES CONTACT WITH THE
SKIN, WASH IMMEDIATELY. IF ELECTROLYTE COMES INTO CONTACT WITH THE
EYES WASH WITH COPIOUS AMOUNTS OF WATER FOR 15 MINUTES AND CONTACT
A PHYSICI AN.

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

Unusual Fire/Explosion Hazard:WHEN EXPOSED TO EXCESSIVE HEAT, CELL MAY
BURST.

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

Spill Release Procedures:USE NEOPRENE, RUBBER LATEX-NITRILE GLOVES WHEN
HANDLING LEAKS. IF ELECTROLYTE LEAKAGE OCCURS AND MAKES CONTACT
WITH THE SKIN, WASH IMMEDIATELY. IF ELECTROLYTE COMES INTO CONTACT
WITH THE EYES, WASH WI TH COPIOUS AMOUNTS OF WATER FOR FIFTEEN (15)
MINUTES AND CONTACT A PHYSICIAN.

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

Handling and Storage Precautions:THE BATTE

RY IS EXTREMELY SENSITIVE TO

ADVERSE EFFECT OF HUMIDITY. BE SURE TO STORE THEM IN A PLACE WHICH IS DRY AND SUBJECT TO LITTLE TEMPERATURE CHANGE. DO NOT PLACE NEAR ANY HEAT SOURCE, NOR EXPOSE TO DIRECT SUNLIGHT. DO NOT DISPOSE OF THE BATTERY IN FIRE. DO NOT CHARGE THE BATTERY.

Other Precautions:DO NOT SHORT-CIRCUIT THE BATTERY. DO NOT INSERT THE BATTERY IN REVERSE POSITION. DO NOT DISSEMBLE THIS BATTERY, HANDLING IN SUCH MANNER CAN CAUSE THE BATTERY TO EXPLODE, LEAK AND CAUSE INJURY.

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

Supplemental Safety and Health

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

HCC:B3

Evaporation Rate & Reference:N/A (BUAC=1)

Appearance and Odor:CYLINDRICAL SHAPE, ODORLESS

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

Stability Indicator/Materials to Avoid:YES

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