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===== Product Identification =====
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Product ID:ALKALINE BATTERY/CELL BA-59

MSDS Date:01/23/1995

FSC:6135

NIIN:00-120-1032

Status Code:A

MSDS Number: CJKVW

=== Responsible Party ===

Company Name:BREN-TRONICS INC

Address:10 BRAYTON CT

City:COMMACK

State:NY

ZIP:11725-3104

Country:US

Info Phone Num:516-499-5155

Emergency Phone Num:516.499.5155

CAGE:51828

=== Contractor Identification ===

Company Na

me:BREN-TRONICS INC

Address:10 BRAYTON CT

Box:City:COMMACK

State:NY

ZIP:11725-3104

Country:US

Phone:631-499-5155

Contract Num:SP0430-99-M-AF55

CAGE:51828

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===== Composition/Information on Ingredients =====
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Ingred Name:POTASSIUM HYDROXIDE

CAS:1310-58-3

RTECS #:TT2100000

Minimum % Wt:5.

Maximum % Wt:9.

ACGIH STEL:C2 MG/M3

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:MANGANESE DIOXIDE

CAS:1313-13-9

RTECS #:OP0350000

Minimum % Wt:32.

Maximum % Wt:38.

OSHA PEL:C5 MG/M3

AC

GIH TLV:5 MG/M3

Ingred Name:ZINC
CAS:7440-66-6
RTECS #:ZG8600000
Minumum % Wt:11.
Maxumum % Wt:16.
OSHA PEL:15 MG/M3
ACGIH TLV:10 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:THESE CHEMICALS ARE CONTAINED IN A
SEALED CAN. RISK O
F EXPOSURE OCCURS ONLY IF THE BATTERY IS
MECHANICALLY OR ELECTRICALLY ABUSED. MOST LIKELY, RISK IS WHEN A
CELL LEAKS. KOH (POTASSIUM HYDROXIDE) IS CAUSTIC AND SKIN CONTACT
CAN CAUSE IRRITATION OR BURNS. EYE CONTACT W/KOH MAY CAUSE
PERMANENT INJURY.
Explanation of Carcinogenicity:NONE SPECIFIED BY MANUFACTURER.
Effects of Overexposure:SKIN-IRRITATION, BURNS. EYES-PERMANENT INJURY.
Medical Cond Aggravated by Exposure:AN ACUTE EXPOSURE WILL NOT
GENERALLYAGGRAVATE ANY MEDICAL C
ONDITION.

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

First Aid:IF LEAKAGE FROM CELLS CONTACTS: SKIN-FLUSH WITH WATER AND
WASH WITH SOAP AND WATER. EYES-FLUSH WITH COPIOUS AMOUNTS OF WATER
FOR 15 MINUTES THEN SEE PHYSICIAN AT ONCE.

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

Flash Point:NA
Autoignition Temp:Autoignition Temp Text:NA
Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE SELF-CONTAINED
BREATHING APPARATUS WHEN A LARGE N

NUMBER OF CELLS ARE INVOLVED.

Unusual Fire/Explosion Hazard:CELLS MAY RUPTURE WHEN HEATED EXCESSIVELY.

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

Spill Release Procedures:AVOID SKIN AND EYE CONTACT. DO NOT INHALE VAPORS. COLLECT ALL RELEASED MATERIAL IN PLASTIC BAG FOR WASTE DISPOSAL.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER. DLA-HMIS STAFF: 5% ACETIC ACID SOLUTION.

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

Handling a

nd Storage Precautions:STORE IN A DRY PLACE. DO NOT RECHARGE. DO NOT SHORT CIRCUIT.

Other Precautions:USE BATTERY ONLY IN PROPER EQUIPMENT. OBSERVE CORRECT POLARITY WHEN INSTALLING INTO EQUIPMENT. DO NOT ATTEMPT TO RECHARGE.

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

Respiratory Protection:AS IN ANY FIRE SITUATION, USE SELF-CONTAINED BREATHING APPARATUS (SCBA).

Ventilation:N/A.

Protective Gloves:WHEN HANDLING LEAKING BATTERIES.

Eye Protection:N/A.

Other

Protective Equipment:N/A.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

NONE SPECIFIED BY MANUFACTURER.

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

HCC:Z7

Boiling Pt:B.P. Text:KOH (1320) MNO2 N/A ZN

Melt/Freeze Pt:M.P/F.P Text:KOH (360) MNO2 (535) ZN

Vapor Pres:KOH MNO2 (NA) ZN (1)@487C

Vapor Density:NA

Spec Gravity:KOH (2.0) MNO2 (5.0) ZN

Evaporation Rate & Reference:KOH MNO2, ZN (NA)

Solubility in Water:KOH (50%), MNO2 (0

%), ZN

Appearance and Odor:KOH (CLEAR LIQUID), MNO2 (BLACK POWDER), ZN (GREY POWDER).

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

Stability Indicator/Materials to Avoid:YES

N/A.

Stability Condition to Avoid:DO NOT HEAT, DISASSEMBLE, OR RECHARGE. DO NOT SHORT CIRCUIT.

Hazardous Decomposition Products:WHEN HEATED, CELLS MAY EMIT HAZARDOUS VAPORS OF CAUSTIC KOH.

===== Toxicological Information =====

Toxicological Information:NONE

SPECIFIED BY MANUFACTURER.

===== Ecological Information =====

Ecological:NONE SPECIFIED BY MANUFACTURER.

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

Waste Disposal Methods:IN SMALL QUANTITIES, BATTERIES MAY BE DISPOSED OF WITH HOUSEHOLD TRASH. DO NOT INCINERATE! DISPOSE OF LARGE QUANTITIES IN ACCORDANCE WITH LOCAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information:NONE SP

ECIFIED BY MANUFACTURER.

===== Regulatory Information =====

SARA Title III Information:NONE SPECIFIED BY MANUFACTURER.

Federal Regulatory Information:NONE SPECIFIED BY MANUFACTURER.

State Regulatory Information:NONE SPECIFIED BY MANUFACTURER.

===== Other Information =====

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se. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.