

ITEM: 5LE23 - PK24 Battery AA Alkaline

MSDS: L2926

ORDER: 0121465221

LP NUMBER: U855512049

MATERIAL SAFETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - L2926

Associated Grainger Items
5LE21, 5LE22, 5LE23, 5LE24, 5LE25, 5LE27, 8AS14, 8AS15, 9DR90, 9HXG1, 9W750
16A669, 16A670, 16A671, 16A672, 16A673, 19R750, 19R751, 19R752

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GILLETTE ENVIRONMENT HEALTH AND SAFETY
37 A STREET
NEEDHAM, MA 02492

TEL: 781.292.9151

MATERIAL SAFETY DATA SHEET

NAME: DURACELL PROCELL PROFESSIONAL ALKALINE BATTERIES

CAS NO: NOT APPLICABLE

EFFECTIVE DATE: 11/06/2003

REV: 3

A. - IDENTIFICATION

	%
MANGANESE DIOXIDE (1313-13-9)	35-40
ZINC (7440-66-6)	10-25
POTASSIUM HYDROXIDE (35%) (1310-58-3)	5-10
GRAPHITE, NATURAL (7782-42-5) OR SYNTHETIC (7440-44-0)	1-5

FORMULA: MIXTURE

MOLECULAR WEIGHT: NA

SYNONYMS:
PROCELL ALKALINE MANGANESE DIOXIDE BATTERIES:
PC1300 (D); PC1400 (C); PC1500 (AA); PC2400 (AAA); PC903 (LANTERN); PC908
(6V); PC915 (6V); PC918 (6V); PC1604 (9V); PC9100 (N); PC7K67 (J) AND
BATTERIES COMPRISED OF THESE CELLS.

B. - PHYSICAL DATA

BOILING POINT:
NA DEG. F
NA DEG. C

MELTING POINT:
NA DEG. F
NA DEG. C

FREEZING POINT:
NA DEG. F
NA DEG. C

SPECIFIC GRAVITY (H2O=1): NA

VAPOR DENSITY (AIR=1): NA

VAPOR PRESSURE @ DEG. F: NA MMHg

EVAPORATION (ETHER = 1): NA

SATURATION IN AIR (BY VOLUME @ DEG. F): NA

AUTOIGNITION TEMPERATURE DEG. F DEG. C: NA

% VOLATILES: NA

SOLUBILITY IN WATER: NA

pH: NA

APPEARANCE/COLOR: CYLINDRICAL BATTERIES. CONTENTS DARK IN COLOR.

FLASH POINT AND TEST METHOD(S): NA

FLAMMABLE LIMITS IN AIR (% BY VOLUME):
LOWER: NA %
UPPER: NA %

C. - REACTIVITY

STABILITY:
(X) STABLE
() UNSTABLE

CONDITIONS TO AVOID:
DO NOT HEAT, CRUSH, DISASSEMBLE, SHORT CIRCUIT OR RECHARGE.

INCOMPATIBLE MATERIALS: CONTENTS INCOMPATIBLE WITH STRONG OXIDIZING AGENTS.

POLYMERIZATION:
() MAY OCCUR
(X) WILL NOT OCCUR

CONDITIONS TO AVOID: NOT APPLICABLE

HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DEGRADATION MAY PRODUCE HAZARDOUS FUMES OF ZINC AND MANGANESE;
HYDROGEN GAS; CAUSTIC VAPORS OF POTASSIUM HYDROXIDE AND OTHER TOXIC
BY-PRODUCTS.

D. - HEALTH HAZARD DATA

OCCUPATIONAL EXPOSURE LIMITS PEL'S, TLV'S, ETC.)

8-HOUR TWAS:

MANGANESE DIOXIDE (AS M_n):
5.0 MG/M³ (CEILING) (OSHA)
0.2 MG/M³ (ACGIH/GILLETTE)

POTASSIUM HYDROXIDE: 2 MG/M³ (CEILING) (ACGIH)

GRAPHITE (ALL KINDS EXCEPT FIBROUS):
2 MG/M³ (ACGIH) (SYNTHETIC)
15 MG/M³ (TOTAL, OSHA)
5 MG/M³ (RESPIRABLE, OSHA)

THESE LEVELS ARE NOT ANTICIPATED UNDER NORMAL CONSUMER USE CONDITIONS.

WARNING SIGNALS: NOT APPLICABLE

ROUTES/EFFECTS OF EXPOSURE:
THESE CHEMICALS AND METALS ARE CONTAINED IN A SEALED CAN. FOR CONSUMER USE,
APPROPRIATE HAZARD WARNINGS ARE INCLUDED ON BOTH THE PACKAGE AND ON THE
BATTERY. POTENTIAL FOR EXPOSURE SHOULD NOT EXIST UNLESS THE BATTERY LEAKS,
IS EXPOSED TO HIGH TEMPERATURES OR IS MECHANICALLY, PHYSICALLY, OR
ELECTRICALLY ABUSED. CONTAINS CONCENTRATED (APPROX. 35%) POTASSIUM
HYDROXIDE, WHICH IS CAUSTIC. ANTICIPATED POTENTIAL LEAKAGE VOLUME OF
POTASSIUM HYDROXIDE IS 2 TO 20 ML, DEPENDING ON SIZE. A SIMILAR AMOUNT OF
ZINC MAY ALSO LEAK.

1. INHALATION:
RESPIRATORY (AND EYE) IRRITATION MAY OCCUR IF FUMES ARE RELEASED DUE TO HEAT
OR AN ABUNDANCE OF LEAKING BATTERIES.

2. INGESTION:
NOT ANTICIPATED DUE TO SIZE OF BATTERIES; CHOKING MAY OCCUR WITH THE SMALLER
AAA BATTERY. IRRITATION, INCLUDING CAUSTIC BURNS/INJURY, MAY OCCUR FOLLOWING
EXPOSURE TO A LEAKING BATTERY.

3. SKIN:

A. CONTACT:
IRRITATION, INCLUDING CAUSTIC BURNS/INJURY, MAY OCCUR FOLLOWING EXPOSURE TO
A LEAKING BATTERY

B. ABSORPTION: NOT ANTICIPATED.

4. EYE CONTACT:
IRRITATION, INCLUDING CAUSTIC/BURNS/INJURY, MAY OCCUR FOLLOWING EXPOSURE TO
A LEAKING BATTERY.

5. OTHER: NOT APPLICABLE

E. - ENVIRONMENTAL IMPACT

1. APPLICABLE REGULATIONS: ALL INGREDIENTS LISTED IN TSCA INVENTORY.

2. DOT HAZARD CLASS: NOT APPLICABLE

3. DOT SHIPPING NAME: NOT APPLICABLE

PLEASE NOTE:
THESE BATTERIES ARE NOT REGULATED BY U.S. DOT OR INTERNATIONAL AGENCIES AS
HAZARDOUS MATERIALS OR DANGEROUS GOODS WHEN SHIPPED. DURACELL USES THE
ARTICLE NAME 'ALKALINE BATTERIES - NON-HAZARDOUS' ON ALL DOMESTIC AND
INTERNATIONAL BILLS OF LADING.

ENVIRONMENTAL EFFECTS:
THESE BATTERIES PASS THE U.S. EPA'S TOXICITY CHARACTERISTIC LEACHING
PROCEDURE AND THEREFORE, MAY BE DISPOSED OF WITH NORMAL WASTE.

F. - EXPOSURE CONTROL METHODS

ENGINEERING CONTROLS: GENERAL VENTILATION UNDER NORMAL USE CONDITIONS.

EYE PROTECTION:
NONE UNDER NORMAL USE CONDITIONS. WEAR SAFETY GLASSES WHEN HANDLING LEAKING
BATTERIES.

SKIN PROTECTION:
NONE UNDER NORMAL USE CONDITIONS. USE NEOPRENE, RUBBER OR LATEX-NITRILE
GLOVES WHEN HANDLING LEAKING BATTERIES.

RESPIRATORY PROTECTION: NONE UNDER NORMAL USE CONDITIONS.

OTHER: KEEP BATTERIES AWAY FROM SMALL CHILDREN.

G. - WORK PRACTICES

HANDLING AND STORAGE:
STORE AT ROOM TEMPERATURE. AVOID MECHANICAL OR ELECTRICAL ABUSE. DO NOT
SHORT OR INSTALL INCORRECTLY. BATTERIES MAY EXPLODE, PYROLYZE OR VENT IF
DISASSEMBLED, CRUSHED, RECHARGED OR EXPOSED TO HIGH TEMPERATURES. INSTALL
BATTERIES IN ACCORDANCE WITH EQUIPMENT INSTRUCTIONS. DO NOT MIX BATTERY
SYSTEMS, SUCH AS ALKALINE AND ZINC CARBON, IN THE SAME EQUIPMENT. REPLACE
ALL BATTERIES IN EQUIPMENT AT THE SAME TIME. DO NOT CARRY BATTERIES LOOSE IN
POCKET OR BAG.

NORMAL CLEAN UP: NOT APPLICABLE

WASTE DISPOSAL METHODS:
INDIVIDUAL CONSUMERS MAY DISPOSE OF SPENT (USED) BATTERIES WITH HOUSEHOLD
TRASH. DURACELL DOES NOT RECOMMEND THAT SPENT BATTERIES BE ACCUMULATED
(QUANTITIES OF FIVE GALLONS OR MORE SHOULD BE DISPOSED OF IN A SECURE
LANDFILL), IN ACCORDANCE WITH APPROPRIATE FEDERAL, STATE AND LOCAL
REGULATIONS. DO NOT INCINERATE, SINCE BATTERIES MAY EXPLODE AT EXCESSIVE

TEMPERATURES.

H. - EMERGENCY PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED TO THE ENVIRONMENT OR SPILLED IN THE WORK AREA.

NOTIFY SAFETY PERSONNEL OF LARGE SPILLS. CAUSTIC POTASSIUM HYDROXIDE MAY BE RELEASED FROM LEAKING OR REPTURED BATTERIES. AVOID EYE OR SKIN CONTACT AND INHALATION OF VAPORS. INCREASE VENTILATION. CLEAN-UP PERSONNEL SHOULD WEAR APPROPRIATE PROTECTIVE GEAR.

FIRE AND EXPLOSION HAZARD:
BATTERIES MAY BURST AND RELEASE HAZARDOUS DECOMPOSITION PRODUCTS WHEN EXPOSED TO A FIRE SITUATION. SEE SEC. C.

EXTINGUISHING MEDIA: AS APPROPRIATE FOR SURROUNDING AREA.

FIREFIGHTING PROCEDURES:
USE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.

I. - FIRST AID AND MEDICAL EMERGENCY PROCEDURES

EYES:

NOT ANTICIPATED. IF BATTERY IS LEAKING AND MATERIAL CONTACTS EYES, FLUSH WITH COPSIOUS AMOUNTS OF CLEAR, TEPID WATER FOR 30 MINUTES. CONTACT PHYSICIAN AT ONCE.

SKIN:

NOT ANTICIPATED. IF BATTERY IS LEAKING, IRRIGATE EXPOSED SKIN WITH COPSIOUS AMOUNT OF CLEAR, TEPID WATER FOR AT LEAST 15 MINUTES. IF IRRITATION, ITAURY OR PAIN PERSISTS, CONSULT A PHYSICIAN.

INHALATION:

NOT ANTICIPATED. IF BATTERY IS LEAKING, CONTENTS MAY BE IRRITATING TO RESPIRATORY PASSAGES. REMOVE TO FRESH AIR. CONTACT PHYSICIAN IF IRRITATION PERSISTS.

INGESTION:

NOT ANTICIPATED. RINSE THE MOUTH AND SURROUNDING AREA WITH CLEAR, TEPID WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN IMMEDIATELY FOR TREATMENT AND TO RULE OUT INVOLVEMENT OF THE ESOPHAGUS AND OTHER TISSUES.

NOTES TO PHYSICIAN:

- 1) THE PRIMARY ACUTELY TOXIC INGREDIENT IS CONCENTRATED POTASSIUM HYDROXIDE (APPROXIMATELY 35%).
- 2) ANTICIPATED POTENTIAL LEAKAGE VOLUME OF POTASSIUM HYDROXIDE IS 2-20 ML, DEPENDING ON SIZE.
- 3) THIS MSDS DOES NOT INCLUDE OR ADDRESS THE SMALL BUTTON OR CELL BATTERIES WHICH CAN BE INGESTED.

ADDITIONAL INFORMATION:

REPLACES 2013.2

THIS MSDS COVERS DISCONTINUED PRODUCT NO. PC926

THE INFORMATION CONTAINED IN THE MATERIAL SAFETY DATA SHEET IS BASED ON DATA CONSIDERED TO BE ACCURATE, HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

* IF MULTIPLE INGREDIENTS, INCLUDE CAS NUMBERS FOR EACH

NA=NOT AVAILABLE

FOOTNOTES: NOT APPLICABLE

MSDS-5 (2/00)

GMEL#: 2000.3