Product Safety Data Sheet

EXELL BATTERY™
800-515-2423 USA/CAN
www.exellbattery.com

Alkaline Button Cell
Jan 2016

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Exell Battery

Type No: 411, 412, 413, 415, 416, 455A, 489, 493, 763, 457 / 467, 504A, 505A, A134, A135, A136, A165, A175, A177, A14PX, A23, A25PX, A27PX, A28PX, A32PX, 206A, LR416, LR421, LR516, LR521, LR621, LR41, LR626, LR754, LR1120, LR1130, LR43, LR44, A76, 11A, LR50(A1PX), LR52(A640), A625

Trade Name: Exell

Approximate Weight: Varies

Chemical System: Zero Mercury Alkaline Manganese Dioxide Button Type RoHS Cells

Design For Recharge NO

BatteriesInAFlash.com, Inc.
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North Las Vegas, NV 89030

Telephone Number for Information
800-515-2423 (USA/Canada)

Date Prepared: Jan 2016

SECTION 2 – HAZARDS IDENTIFICATION

Under normal conditions of use, the battery is sealed.

Critical hazards to man: If battery is leaking, exposure to caustic ingredients may occur
Critical hazards to the environment: Dispose of battery (see Section 13). Contains zinc compounds which may present a hazard to aquatic environments
Other Information: Keep batteries away from small children

SECTION 3 - INGREDIENTS

IMPORTANT NOTE: The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

Hazardous Components	CAS No.	EEC No	wt%	PEL (OSHA)	TLV (ACGIH)
Manganese Dioxide (MnO2)	1313-13-9	215-202-6	25-30	5 mg/m^3 Ceiling	0.2 mg/m^3 TWA
Potassium Hydroxide (KOH)	1310-58-3	215-181-3	0-12	NA	2 mg/m^3 Ceiling
Zinc (Zn)	7440-66-6	231-175-3	5-10	0.1 mg/m^3 TWA	10 mg/m^3 TWA
Indium Hydroxide	20661-21-6	243-947-7	1-2	0.1 mg/m^3 TWA	0.1 mg/m^3 TWA
Graphite	7748-42-5	231-955-3	1-4	15 mg/m^3 TWA	2 mg/m^3 TWA
Sodium Hydroxide (NaOH)	1310-73-2	215-185-5	0-12	2 mg/m^3 TWA	2 mg/m^3 Ceiling
Iron	7439-89-6	231-096-4	30-35	NA	NA

SECTION 4 – FIRST AID MEASURES

General Advice: These chemicals and metals are contained in a sealed can. For consumer use, adequate 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, is accidently swallowed or is mechanically, physically or electrically abused. Contains concentrated (35%) potassium hydroxide, which is caustic. Anticipated potential leakage of potassium hydroxide is 0.05 to 0.5ml, depending on battery size.

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SECTION 4 – FIRST AID MEASURES (continued)

Ingestion: Batteries lodged in the esophagus should be removed immediately since leakage, caustic burns and perforation can occur as soon as 4-6 hours after ingestion. Irritation, including caustic burns to the internal/external mouth areas, may occur following exposure to a leaking battery. An initial x-ray should be obtained promptly to determine battery location. Published reports recommended removal from the esophagus be done endoscopically (under direct visualization). Batteries beyond the esophagus need not be retrieved unless there are signs of injury to the GL tract or a large diameter battery fails to pass the pylorus. If asymptomatic, follow-up x-rays are necessary only to confirm passage of larger batteries. Confirmation by stool inspection is preferable under most circumstances. If mouth irritation/burning has occurred, rinse the mouth and surrounding area with clear, tepid water for at least 15 minutes. If irritation, injury or pain persists, consult a physician.

Inhalation: Respiratory and eye irritation may occur if fumes are released due to heat and an abundance of leaking batteries. Remove to fresh air. Contact a physician if irritation persists.

Skin Contact: Irritation, including caustic burns/injury, may occur following exposure due to heat or an abundance of leaking batteries. If battery is leaking, irrigate exposed skin with copious amounts of clear, tepid water for 30 minutes. If irritation, injury or pain persists, consult a physician.

Eye Contact: Irritation, including caustic burns/injury, may occur following exposure due to heat or an abundance of leaking batteries. If battery is leaking and material contacts eyes, flush with copious amounts of clear, tepid water for at least 15 minutes. Contact a physician at once.

Notes to Physician: The primary acutely toxic ingredient is concentrated (35%) potassium hydroxide. Anticipated potential leakage of potassium hydroxide is 0.05 to 0.5 ml.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing media: As appropriate for adjacent fire.
Special protection equipment: In fire involving large quantities of product, use self-contained breathing apparatus and full protective clothing.
Further information: Hazardous decomposition products may be produced. (Section 10)

SECTION 6 – ACCIDENTAL RELEASE MEASURES

To cleanup leaking batteries:

Personal Precautions: Caustic potassium hydroxide may be released form leaking or ruptures batteries. Avoid eye or skin contact and inhalation of vapors. Increase ventilation. Clean up personnel should wear appropriate protective gear.
Environmental precautions: Not applicable
Methods for clean up: Not applicable

SECTION 7 – HANDLING AND STORAGE

Storage: Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life.
Handling: Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices.
Charging: This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some cases, high-pressure rupture. Inadvertent charging can occur if a battery is installed backwards.
Labeling: If the Eveready Battery label or package warnings are not visible, it is important to provide a package and/or device label stating:

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SECTION 7 – HANDLING AND STORAGE (continued)

WARNING: do not install backwards, charge, put in fire, or mix with other battery types. May explode or leak causing injury. **Replace all batteries at the same time.** Where accidental ingestion of small batteries is possible, the label should include: Keep away from small children. If swallowed, promptly see doctor.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Requirements: Not necessary under normal conditions.
Respiratory Protection: Not necessary under normal conditions.
Eye Protection: Not necessary under normal conditions. Wear safety glasses when handling leaking batteries.
Gloves: Not necessary under normal conditions. Use neoprene, rubber or nitrile gloves when handling leaking batteries.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance: Button cells. Contents dark in color.

Odor	Odorless	**pH**	N/A
Melting Point (°C)	N/A	**Specific Gravity (H2O=1)**	N/A
Boiling Point (°C)	N/A	**Vapor Density (Air=1)**	N/A
Vapor Pressure (kPa)	N/A	**Heat of Combustion (kJ/mol)**	N/A
Critical Temperature (°C)	N/A	**Critical Pressure (MPa)**	N/A
Partition Coefficient	N/A	**Flash Point (°C)**	N/A
Ignition Temperature (°C)	N/A	**Explosion Limit % (V/V)**	N/A
Solubility in Water	N/A	**Solubility in Other Solvents**	N/A

SECTION 10 – STABILITY AND REACTION

Stability: Stable

Alkaline Button RoHS Cells do not meet any of the criteria established in 40 CFR 261.2 for reactivity.

SECTION 11 – TOXICOLOGICAL INFORMATION

Alkaline Button RoHS Cells are non-toxic and not hazardous waste under general usages.

SECTION 12 – ECOLOGICAL INFORMATION

Not applicable

SECTION 13 – DISPOSAL CONSIDERATION

Dispose in accordance with Federal, States and local regulations. Appropriate disposal technologies include incineration and land filling.

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SECTION 14 – TRANSPORT INFORMATION

In general, all batteries in all forms of transportation (ground, air or ocean) must be package in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be package in a manner that prevents short circuits and be contained in "strong outer packaging" that prevents spillage of contents. All original packaging for Exell Battery alkaline batteries has been designed to compliant with these regulatory concerns. Alkaline batteries (sometimes referred to as "Dry cell" batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulations, ICAO Technical Instructions and the US hazardous material regulations (49th CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirements contained in the following special provisions.

Regulatory Body	Special Provisions
US DOT	49 CFR 172.102 Provision 130
IATA	A123 (57th edition 2016)
UN	Not Regulated
IMDG	Not Regulated
ADR/RID	Not Regulated
ICAO	Not Regulated

SECTION 15 – REGULATORY INFORMATION

Exell Battery Alkaline Button RoHS Cells are not classified as dangerous by the US Department of Transportation or the major international regulatory bodies and therefore not regulated

SECTION 16 – OTHER INFORMATION

None

Notice to reader:

The information contained in this MSDS was obtained from current and reliable sources, however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of BatteriesInAFlash.com. BatteriesInAFlash.com, Inc. will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this MSDS shall be created or inferred by any statement in this MSDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this MSDS. The user is responsible for full compliance.

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