

Article Information Sheet (AIS)

This Article Information Sheet (AIS) provides relevant battery information to retailers, consumers, OEMs and others users requesting a GHS-compliant SDS. Articles, such as batteries, are exempt from GHS SDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health and environmental hazards of an article. Branded consumer batteries are defined as electro-technical devices. The design, safety, manufacture, and qualification of branded consumer batteries follow ANSI and IEC battery standards. This document is based on principles set forth in the following hazard communication approaches: ANSI Z-400.1, GHS, JAMP AIS, and IEC 62474.

| 1. Document Information | |
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| Document Name | Duracell Alkaline Batteries (Major and Specialty Cells) |
| Document ID | AIS-ALK |
| Issue Date | 1-May-15 |
| Version | 1 |
| Preparer | Global Product Stewardship |
| Last Revision | New |
| Information Contact | moquet.l@pg.com |
| 2. Company Information | |
| Name & Address | P&G Duracell Global Business Unit, 14 Research Drive, Bethel, CT USA 06801 |
| Telephone | (203) 796- 4430 |
| Website | www.duracell.com |
| Consumer Relations | North America: 1-800-551-2355 (9:00 AM - 5:00 PM EST) |
| 3. Article Information | |
| Description | Duracell branded consumer alkaline battery |
| Product Category | Electro-technical device |
| Use | Portable power source for electronic devices |
| Global sub-brands (Retail) | Coppertop, Plus, Quantum, Simply, Turbo, Ultra, Basic, TurboMax |
| Global sub-brands (B2B) | Procell, Industrial, OEM/OEA |
| Sizes | <u>Major Cells:</u> AA,AAA, C, D & 9V |
| Sizes | <u>Specialty Cells:</u> AAAA, MN11, MN21, MN27, MN175, PX76 (LR44), PX28, PX625, (LR09), LR43, LR54, N, J, 4.5V, 625A |
| Sizes | <u>Lanterns:</u> MN903, MN908, MN915, MN918; MN1203 |
| Principles of Operation | A battery powers a device by converting stored chemical energy into electrical energy. |
| Representative Product Images |  |
| | <div style="display: flex; justify-content: space-around; text-align: center;"> <div>Major Cells</div> <div>Major Cells</div> <div>Lantern</div> <div>Specialty</div> </div> |
| 4. Article Construction | |
| Applicable Battery Industry Standards | ANSI C18.1M Part 1, ANSI C18.1M Part 2, ANSI C18.4, IEC 60086,1, IEC 60086-2, IEC 60086-5 |
| Electro-technical System | Alkaline Manganese Dioxide |
| Electrode - Negative | Zinc (CAS # 7440-66-6) |
| Electrode - Positive | Manganese Dioxide (CAS # 1313-13-9) |
| Electrolyte | Alkali Metal Hydroxide (aqueous potassium hydroxide - CAS # 1310-58-3) |
| Materials of Construction - Can | Nickel Plated Steel |
| Declarable Substances (IEC 62474 Criteria 1) | None |
| Mercury Free Battery (ANSI C18.4M <50ppm) | Yes |
| Small Cell or Battery (ANSI C18.1M Part 2; IEC 60086-5) | Sizes: AAA and Specialty Cells fit inside a specially designed test cylinder 2.25 inches (57.1mm) long by 1.25 inches (31.70 mm) wide. |
| 5. Health & Safety | |

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| Ingestion/Small Parts Warning | <u>Required for Small Cell or Battery (Sizes: AAA and Specialty Cells):</u> Keep away from children. If swallowed, consult a physician immediately. |
| Normal Conditions of Use | Exposure to contents inside the sealed battery will not occur unless the battery leaks, is exposed to high temperatures, or is mechanically abused. |
| Note to Physician | A damaged battery will release concentrated and caustic potassium hydroxide. |
| First Aid - If swallowed | Do not induce vomiting. Seek medical attention immediately. USA CALLS ONLY - CALL 24-HOUR NATIONAL BATTERY INGESTION HOTLINE: (202) 625-3333 - COLLECT. |
| First Aid - Eye Contact | Flush with water for at least 15 minutes. Seek medical care if irritation persists. |
| First Aid - Skin Contact | Remove contaminated clothing. Wash skin with soap and water. Seek medical care if irritation persists. |
| First Aid - Inhalation | Remove to fresh air. |
| Battery Safety Standards & Testing | Duracell batteries meet the requirements of ANSI C18. 1M Part 2 and IEC 60086-5. These standards specify tests and requirements for alkaline batteries to ensure safe operation under normal use and reasonably foreseeable misuse. The test regimes assess three conditions of safety. These are: <u>1-Intended use simulation:</u> Partial use, vibration, thermal shock, and mechanical shock <u>2-Reasonably foreseeable misuse:</u> Incorrect installation, external short-circuit, free fall (user-drop), over-discharge, and crush <u>3-Design consideration:</u> Thermal abuse, mold stress |
| Precautionary Statements | CAUTION: Batteries may explode or leak, and cause burn injury, if recharged, disposed of in fire, mixed with a different battery type, inserted backwards or disassembled. Replace all used batteries at the same time. Do not carry batteries loose in your pocket or purse. Do not remove the battery label. Keep small batteries (i.e., AAA) away from children. If swallowed, consult a physician at once. |
| 6. Fire Hazard & Firefighting | |
| Fire Hazard | Batteries may rupture or leak if involved in a fire. |
| Extinguishing Media | Use any extinguishing media appropriate for the surrounding area. |
| Fires Involving Large Quantities of Batteries | Large quantities of batteries involved in a fire will rupture and release caustic potassium hydroxide. Firefighters should wear self-contained breathing apparatus and protective clothing. |
| 7. Handling & Storage | |
| Handling Precautions | Avoid mechanical and electrical abuse. Do not short circuit or install incorrectly. Batteries may rupture or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions. |
| Storage Precautions | Store batteries in a dry place at normal room temperature. Refrigeration does not make them last longer. |
| Spills of Large Quantities of Loose Batteries (unpacked) | Notify spill personnel of large spills. Irritating and flammable vapors may be released from leaking or ruptured batteries. Spread batteries apart to stop shorting. Eliminate all ignition sources. Evacuate area and allow vapors to dissipate. Clean-up personnel should wear appropriate PPE to avoid eye and skin contact and inhalation of vapors or fumes. Increase ventilation. Carefully collect batteries and place in appropriate container for disposal. Remove any spilled liquid with absorbent material and contain for disposal. |
| 8. Disposal Considerations (GHS Section 13) | |
| Collection & Proper Disposal | Dispose of used (or excess) batteries in compliance with federal, state/provincial and local regulations. Do not accumulate large quantities of used batteries for disposal as accumulations could cause batteries to short-circuit. Do not incinerate. In countries, such as Canada and the EU, where there are regulations for the collection and recycling of batteries, consumers should dispose of their used batteries into the collection network at municipal depots and retailers. They should not dispose of batteries with household trash. |

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| USA EPA RCRA (40 CFR 261) | Classified as non-hazardous waste (not ignitable, corrosive, reactive or toxic). Federal Universal Waste Regulations (40 CFR 273) do not apply. State requirements may be more stringent than Federal. |
| California Universal Waste Rule (Cal. Code Regs. Title 22, Div. 4.5, Ch. 23) | California prohibits disposal of batteries as trash (including household trash). |
| 9. Transport Information (GHS Section 14) | |
| Regulatory Status | Not regulated. Alkaline batteries (sometimes referred to as “Dry Cell” or “household” batteries) are not listed or regulated as dangerous goods under IATA Dangerous Goods Regulations, ICAO Technical Instructions, IMDG Code, UN Model Regulations, U.S. Hazardous Materials Regulations (49 CFR), and UNECE ADR. |
| UN Identification Number/ Shipping Name | None - Not Required |
| Special Provision (SP) Conformance | Special regulatory provisions require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits. Shippers can prepare batteries by taping the terminals, individually packaging batteries, or otherwise segregating the batteries to prevent risk of creating a short circuit. Batteries shipped in original unopened Duracell packaging is compliant. |
| US DOT SP | 49 CFR 172.102 Special Provision 130 |
| Air Transport (IATA/ICAO) SP | Special Provision A123 (56th Edition - 2015). NOTE: The words "NOT RESTRICTED" and "SPECIAL PROVISION A123" must be included on the description of the substance on the Air Waybill, when air way-bill is issued. |
| Passenger Air Travel | No restrictions |
| Emergency Transportation Hotline | CHEMTREC 24-Hour Emergency Response Hotline Within the United States call +703-527-3887 Outside the United States, call +1 703-527-3887 (Collect) |
| 10. Regulatory Information (GHS Section 15) | |
| 10a. Battery Requirements | |
| USA EPA Mercury Containing & Rechargeable Battery Management Act of 1996 | During the manufacturing process, no mercury is added. |
| EU Battery Directive 2006/66/EC & amendment 2013/56/EU | Compliant with marking and substance restrictions for mercury (<0.0005%); cadmium (<0.0020%) and lead (<0.0040%). Global labels are marked with the special collection symbol and the EU qualifier in accordance with EU Battery Directive 2006/66/EC, Article 11. Paragraph 1 on batteries and accumulators and waste batteries and accumulators |
| 10b. General Requirements | |
| USA CPSIA 2008 (PL. 11900314) | Exempt |
| USA CPSC FHSA (16 CFR 1500) | Consumer batteries are not listed as a hazardous product. |
| USA EPA TSCA Section 13 (40 CFR 707.20) | For customs clearance purpose, batteries are defined as an "Article". |
| USA EPA RCRA (40 CFR 261) | Classified as non-hazardous waste (not ignitable, corrosive, reactive or toxic). Federal Universal Waste Regulations (40 CFR 273) do not apply. State requirements may be more stringent than Federal. |
| California Prop 65 | No warning required per 3rd party assessment. |
| CANADA Products Containing Mercury Regulations SOR/20140254 | Mercury free |
| EU REACH SVHC's (161 Substances) Candidate List December 2014) | No listed substances are present (>0.01% w/w) |
| EU REACH Article 31 | SDS is not required consumer alkaline batteries. |

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10c. Regulatory Definitions - Articles

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| USA OSHA | 29 CFR 1910.1200(b)(6)(v) |
| USA TSCA | 40 CFR 704.3; 710.2(3)(c); and [19 CFR 12.1209a]] |
| EU REACH | Title 1 - Chapter 2 - Article 3(3) |
| GHS | Section 1.3.2.1 |

11. Other Information

11a. Certification & 3rd Party Approvals

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| UL (UTGT2.S50939 Single Multiple Station Smoke Alarms - Component) | AA, 9V Certification Standard: ANSI/UL 217 Single & Multiple Station Smoke Alarms |
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11b. AIS Hazard Communication Approaches (consulted in developing this document):

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| Globally Harmonized System (GHS) | GHS SDS requirements and classification criteria do not apply to articles or products (such as batteries) that have a fixed shape, which are not intended to release a chemical. The article exemption is found in Section 1.3.2.1.1 of the GHS and reads: <i>The GHS applies to pure substances and their dilute solutions and to mixtures. "Articles" as defined by the Hazard Communication Standard (29 CFR 1900.1200) of the OSHA of the USA, or by similar definition, are outside the scope of the system."</i> |
| Joint Article Management Promotion Consortium JAMP | JAMP is a Japanese Industry Association who developed the concept of an Article Information Sheet as a supply chain tool to share and communicate chemical information in articles. The AIS authoring process is based on “declarable” substances to meet global regulatory requirements as well as substances to be reported by GADSL, JIG, etc. |
| IEC 62474 Ed. 1.0 B:2012 Material Declaration for Products of and for the Electro-technical Industry | An international standard that came into effect in March 2012 concerning declaration for electrical and electronic products. IEC 6274 replaces the defunct Joint Industry Guide – Material Declaration for Electro-technical Products (JIG-101-Ed 4.1 (May 21, 2012) |
| IEC 62474 Database - Publically available online (maintained by TC11: Environmental Standardization for electrical and electronic products and systems. | The general principle for a substance to be included in the database as a declarable substance is: 1) existing national laws or regulations in an IEC member country that are relevant to Electro-technical products and that prohibit or restrict substances, or that have a labeling, communication, reporting or notification requirement, and 2) applying IEC 62474 criteria results in identification of declarable substance. |
| ANSI Z 400.1/Z19.1 (2010) | 2.1 Scope: Applies to preparation of SDSs for hazardous chemicals used under occupational conditions. Does not address how the standard may be applied to articles. It presents basic information on how to develop and write a SDS. Additional information is provided to help comply with state and federal environmental and safety laws and regulations. Elements of the standard may be acceptable for International use. |


DISCLAIMER: This AIS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations. This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Procter & Gamble assumes no responsibility for injury to the recipient or third persons or for any damage to any property resulting from misuse of the product.

MATERIAL SAFETY DATA SHEET

Lithium-ion Battery

Model: ICR18650- 2200mAh 3.7V

| | |
|--------------------|--------------------|
| Prepared by | Approved by |
| Lingling Chen | Luisa Wang |
| Date: Jul.14, 2017 | Date: Jul.15,2017 |



Material Safety Data Sheet

Section 1-Chemical Product and Company Identification

Product Identification

Lithium-Ion Polymer battery

Cell model:18650-2200mAh

Nominal Voltage : 3.7 V

Weight: :45g

Power: :8.14Wh

Period : Jul.14, 2017 To Dec.31, 2017

Manufacturer

Shenzhen Pow-tech New Power Co., Ltd.

ADD:Room1204, Tower 3,Zhuoyue Meilin central square,Zhongkang Road, Shangmeilin area, Futian Distr

ict, ,Shenzhen,China

Tel: (+86)755-82721259, Fax: (+86)755-82721250

E-mail : luisa-wang@szpowtech.com.cn

Section 2-Hazards Identification

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| Preparation hazards and classification | Not dangerous with normal use. Do not dismantle, open or shred Li-ion Battery. Exposure to the ingredients contained within or their ingredients products could be harmful. |
| Appearance, Color, and Odor | Solid object with no odor, no color. |
| Primary Route(s) of Exposure | These chemicals are contained in a sealed stainless steel enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact. |
| Potential Health Effects: | <p>ACUTE (short term): see Section 8 for exposure controls In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be corrosive and can cause burns.</p> <p>Inhalation: Inhalation of materials from a sealed battery is not an expected route of exposure. Vapors or mists from a ruptured battery may cause respiratory irritation.</p> <p>Ingestion: Swallowing of materials from a sealed battery is not an expected route of exposure. Swallowing the contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.</p> <p>Skin: Contact between the battery and skin will not cause any harm. Skin contact with contents of an open battery can cause severe irritation or burns to the skin.</p> <p>Eye: Contact between the battery and the eye will not cause any harm. Eye contact with contents of an open battery can cause severe irritation or burns to the eye.</p> <p>CHRONIC (long term): see Section 11 for additional toxicological data</p> |
| Medical Conditions Aggravated by Exposure | Not applicable |
| Reported as carcinogen | Not applicable |

Section 3-Composition/Information on Ingredients

| Chemical Composition 化学名称 | Chemical Formula 分子式 | CAS No: CAS 号: | Weight(%) 百分含量(%) | |
|--|-------------------------------|-------------------|----------------------|-------|
| Nickel cobalt manganese 三元(镍钴锰) Cobalt lithium manganese nickel oxide; | Co.Li.Mn.Ni.O | 182442-95-1 | 47 | |
| Graphite 石墨 | C | 7782-42-5 | 20.2 | |
| Organic Electrolyte 有机电解 液 | 碳酸乙烯酯(EC) | C3H4O3 | 96-49-1 | 3.35 |
| | 碳酸甲乙酯 (EMC) | C4H8O3 | 623-53-0 | 0.785 |
| | 碳酸二乙酯 (DEC) | C5H10O3 | 105-58-8 | 5.23 |
| | 碳酸丙烯酯(PC) | C4H6O3 | 108-32-7 | 1.785 |
| | 六氟磷酸锂 (LiPF6) | F6LiP | 21324-40-3 | 1.35 |
| Polypropylene 聚丙烯 | C ₃ H ₆ | 9003-07-0 | 1.2 | |
| Copper 铜 | Cu | 7440-50-8 | 7.7 | |
| Aluminum 铝 | Al | 7429-90-5 | 4.6 | |
| Nickel 镍 | Ni | 7440-02-0 | 6.8 | |

Section 4-First-aid Measures

Section 4-First-aid Measures

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| Inhalation | If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice. |
| Skin contact | If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard. |
| Eye contact | If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility. |
| Ingestion | If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility. |

Section 5-Fire Fighting Measures

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| Flammable Properties | In the event that this battery has been ruptured, the electrolyte solution contain within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials. |
| Suitable extinguishing Media | Use extinguishing media suitable for the materials that are burning. |
| Unsuitable extinguishing Media | Not available |

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| Explosion Data | Sensitivity to Mechanical Impact: This may result in rupture in extreme cases Sensitivity to Static Discharge: Not Applicable |
| Specific Hazards arising from the chemical | Fires involving Li-ion Battery can be controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire |
| Protective Equipment and precautions for firefighters | As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus(SCBA) with full protective gear. |
| NFPA | Health: 0 Flammability: 0 Instability: 0 |

Section 6-Accidental Release Measures

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| Personal Precautions, protective equipment, and emergency procedures | Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8. |
| Environmental Precautions | Prevent material from contaminating soil and from entering sewers or waterways. |
| Methods and materials for Containment | Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately. |
| Methods and materials for cleaning up | Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal. |

Section 7-Handling and Storage

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| Handling | <p>Don't handling Li-ion Battery with metalwork. Do not open, disassemble, crush or burn battery.</p> <p>Ensure good ventilation/ exhaustion at the workplace.</p> <p>Prevent formation of dust. Information about protection against explosions and fires: Keep ignition sources away- Do not smoke.</p> |
| Storage | <p>If the Li-ion Battery are subject to storage for such a long term as more than 3 months, it is recommended to recharge the Li-ion Battery periodically.</p> <p>3 months: -10 °C ~+40 °C , 45 to 85%RH And recommended at 0°C~+35°C for long period storage.</p> <p>The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. The voltage for a long time storage shall be 3.7V~4.2V range.</p> |
| | <p>Do not storage Li-ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.</p> <p>Keep out of reach of children.</p> <p>Do not expose Li-ion Battery to heat or fire.</p> <p>Avoid storage in direct sunlight.</p> <p>Do not store together with oxidizing and acidic materials.</p> |

Section 8-Exposure Controls/Personal Protection

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| Engineering Controls | <p>Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.</p> |
| Personal Protective Equipment | <p>Respiratory Protection: Not necessary under normal conditions.</p> <p>Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.</p> <p>Hand protection: Wear neoprene or natural rubber</p> |

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| | material gloves if handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery. |
| Other Protective Equipment | Have a safety shower and eye wash fountain readily available in the immediate work area. |
| Hygiene Measures | Do not eat, drink, or smoke in work area. Maintain good housekeeping. |

Section 9-Physical and Chemical Properties

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| Physical State | Form: Solid |
| | Color: White |
| | Odour: Monotony |
| Change in condition: | |
| pH, with indication of the concentration | Not applicable |
| Melting point/freezing point | Not available. |
| Boiling Point, initial boiling point and Boiling range: | Not available. |
| Flash Point | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Vapor Pressure: | Not applicable |
| Vapor Density: (Air = 1) | Not applicable |
| Density/relative density | Not available. |
| Solubility in Water: | Insoluble |
| n-octanol/water partition coefficient | Not available. |
| Auto-ignition temperature | 130°C |
| Decomposition temperature | Not available. |
| Odour threshold | Not available. |

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| Evaporation rate | Not available. |
| Flammability (soil, gas) | Not available. |
| Viscosity | Not applicable |

Section 10- Stability and Reactivity

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| Stability | The product is stable under normal conditions. |
| Conditions to Avoid (e.g. static discharge, shock or vibration) | Do not subject Li-ion Battery to mechanical shock. Vibration encountered during transportation does not cause leakage, fire or explosion. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse. |
| Incompatible Materials | Not Available |
| Hazardous Decomposition Products | This material may release toxic fumes if burned or exposed to fire |
| Possibility of Hazardous Reaction | Not Available |

Section 11-Toxicological Information

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| Irritation | Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur. |
| Sensitization | Not Available |
| Neurological Effects | Not Available |
| Teratoaenicity | Not Available |
| Reproductive Toxicity | Not Available |
| Mutagenicity (Genetic Effects) | Not Available |



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| Toxicologically Synergistic Materials | Not Available |
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Section 12-Ecological Information

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| General note: | Water hazard class 1(Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. |
| Anticipated behavior of a chemical product in environment/possible environmental impace/ecotoxicity | Not Available |
| Mobility in soil | Not Available |
| Persistence and Degradability | Not Available |
| Bioaccumulation potential | Not Available |
| Other Adverse Effects | Not Available |

Section 13-Disposal Considerations

Product disposal recommendation: Observe local, state and federal laws and regulations. Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

The potential effects on the environment and human health of the substances used in batteries and accumulations; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

Section 14-Transport Information

This report applies to by sea, by air and by land;

The Li-ion Battery tested according to the requirements of the 6th revised edition of the UN manual of tests and Criteria, Part III, subsection 38.3;

Lithium ion battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit;



The LITHIUM ION BATTERY according to Section II/IA/IB of PACKING INSTRUCTION 965/ 966 /967 of the 2017 IATA Dangerous Goods regulations 58th Edition may be transported and applicable U.S.DOT regulations for the safe transport of Li-ion Battery.

More information concerning shipping, testing, marking and packaging can be obtained from label master at <http://www.labelmaster.com/>.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged; Each package must be labeled with a Li-ion Battery handling label or in addition to the Class 9 hazard label. With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations. UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): Non dangerous;

Marine pollutant (Y/N): N;

- The International Maritime Dangerous Goods (IMDG) Code.

For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit. UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): Non dangerous; Marine pollutant (Y/N): Y;

Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;

- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA
- The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT) Research and Special Programs Administration (RSPA)

Section 15-Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

Hazardous

Non-hazardous

Section 16-Other Information



The information above is believed to be accurate and represents the best information currently available to us. However, Concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration of investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.