MATERIAL SAFETY DATA SHEET

PRODUCT Lithium Ion battery

I. Product Identification

Product: **16170H**
Synonyms: Lithium Ion Battery 18650 2400mAh(8.88Wh) 3.7V

Manufacturer/Suppier
Delta Kits Inc.
1090 Bailey Hill Rd. Suite A
Eugene OR. 97402
Tel: (800)-548-8332
Fax: (541)-345-1591

Chemtel
Emergency Telephone number
(800)-255-3925 US
(800)-248-0585 Int.

II. Hazards Identification.

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 combustion 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 or ingestion. Eye contact and skin contact.

Potential Health Effects:

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.

Eye: Contact between the battery and the eye will not cause any harm. Eye contact with the contents of an open battery can cause severe irritation or burns to the eye.

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.

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.

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.

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.

Chronic (long term): see Section 11 for additional toxicological data

Medical Conditions Aggravated by Exposure: Not Applicable

Reported as carcinogen: Not Applicable

III. Composition

Li-Polymer Batery is a mixture.

Component	C.A.S. number	Composition
Aluminum Foil (Al)	7429.90-5	5%
Copper Foil (Cu)	7440-50-5	10%
Cobalt Lithium dioxide (CoO2.Li)	12190-79-3	40%
Graphite {C}	7782-42-5	20%
Electrolyte	N/A	15.0%
Aluminum plastic film	N/A	5.0%
PCB	N/A	5.00%

Labeling according to EC directives.
No symbol and risk phrase are required.
Note: CAS number is Chemical Abstract Service Registry Number.
N/A=Not apply

IV. First Aid Measures

For materials leaking from battery

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.

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.

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 the victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240ml (2-8oz) 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.

Inhalation: If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.

V. Fire Fighting Measures

Flammable Properties: In the event that this battery has been ruptured, the electrolyte solution contained 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.

Extinguishing Media: Use extinguishing media suitable to the materials that are burning.

Unsuitable extiquishing Media: Not available

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 Batteries 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 fire fighter: As for any fire, evacuate the area and fight the fire from a safe distance. Fight fire from a protected location or safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus(SCBA) with full protective gear.

NFPA **Health:0** **Flamability:0** **Instability:0**

VI. Accidental Release Measures.

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 fro contaminating soil and from entering sewers or waterways.

Methods of materials of 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 water container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub area with detergent and water. Collect all contaminated wash water for proper disposal.

VII. Handling and Storage.

Handling: Don't handle Li-ion Battery with metalwork. Do not open, disassemble , crush or burn battery. Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. Information about protection against explosions and fires: Keep ignition sources away-Do not smoke.

VIII. Exposure Controls, Personal Protection.

Engineering Controls: 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.

Personal Protective Equipment:
Respiratory Protection: Not necessary under normal conditions.

Skin Protection: Not necessary under normal condition. Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand Protection: Wear neoprene or natural rubber gloves if handling an open battery.

Eye and Face Protection: Not necessary under normal conditions. Wear safety glasses if handling an open or leaking battery.

Other Protective Euipment: Have eye wash fountain redily available in the immediate work station.

Hygiene Measures: Do not eat, drink or smoke in work area. Maintain good housekeeping.

XIV. Physical and Chemical Properties

Physical State Form: Solid
Color: Silvery white
Odor: Monotony
Change in condition:

pH, with indication of the concentration:	Not Applicable.
Melting pointfreezing point:	Not Applicable.
Boiling Point, initial boiling point and Boiling range:	Not Applicable.
Flash Point	Not Applicable.
Upper/lower flammability or explosive limits	Not Applicable.
Vapor Pressure:	Not Applicable.
Vapor Density:(Air=1)	Not Applicable.
Density/relative desity:	Not Applicable.
Solubility in Water	Insoluble
n-octanol/water partition coefficient	Not Applicable.
Auto-ignition temperature	$130^{O}C$
Decomposition temperature	Not Applicable.
Odout threshold	Not Applicable.
Evaporation Rate:	Not Applicable.
Flammability(soil, gas)	Not Applicable.
Viscosity:	Not Determined

X. Stability and Reactivity

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

XI. Toxicological Information.

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
Toxicologically Synergistic Materials.	Not Available

XII. Ecological Information.

Environmental Toxicity: Water hazard class 1(Self-assessment): Slightly

XIII. 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 disassemble 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.

XIV. Transport Information.

Concorde's Li-ion Battery comply with the UN Recommendations on the Transport of Dangerous Goods; IATA Dangerous Goods regulations, and applicable U.S. DOT regulations for the sage transport of Li-ion Battery. The Li-ion Batteries have been tested under provisions of the UN Manual of Tests and Criteria, Part III, sub-section 38.3 and are classified as non-dangerous goods as per 548th IATA DGR 2017.

Lithium ion cell/battery
Lithium ion cell/battery = UN 3480 with Section II of PI965
Lithium ion cell/battery packed with equipment = UN 3481 with Section II of PI966
Lithium ion cell/battery contained in equipment = UN 3481 with Section II of PI967

Lithium ion:
Content in Watt-hour(Wh) AND lithium ion cell : less that 20Wh per cell
Lithium ion battery : less than 100Wh per battery

Transport fashion: Land transport ADR/RID (cross-border)
Sea Transport IMDG
Air Transport ICAO-TI and IATA-DGR

XV. Regulatory Information.

OSHA Hazard communication standard (29 CGR 1910.12000)
_____**Hazardous** ____**V**_____ **Non-hazardous**

XVI. Preparation Information.

Preparation Date: 28/01/2013 Revised Date: 4/6/2017