

## Material Safety Data Sheet

Client	Electracom Pty Ltd trading as CMS Electracom	
Add. of Client	24 Binney Rd, Kings Park, NSW, 2148, Australia	
Description	Rechargeable Li-ion Portable Power	
Trade Name		
Model /Type	FR001	
Manufacturer	Electracom Pty Ltd trading as CMS Electracom	
Add. of Manufacturer	76 Leggo Crt, Dandenong South, VIC, 3175, Australia	
Capacity	y 3150mAh	
Wh rating	68Wh	
Date of Receipt	2021-01-26	

Laboratory	Dongguan ZRLK Testing Technology Co., Ltd.		
	Building D, No.2, Jinyuyuan Mansion, No.18, Industrial West Road,		
Address	Songshan Lake High-tech Industrial Development Zone, Dongguan,		
	Guangdong, China		
Approved Signatory	Barry Peng	Barry Peng	
Inspected by	Ailis.Ma	Ailis Ma	
Censored by	Lahm Peng	Lahn Peng	



### Section 1- Chemical Product and Company Identification

#### 1. Chemical Product Identification

Product name: Rechargeable Li-ion Portable Power

Model: FR001

#### 2. Company Identification

Manufacturer /Supplier Name: Electracom Pty Ltd trading as CMS Electracom

Address: 76 Leggo Crt, Dandenong South, VIC, 3175, Australia

Telephone number of the supplier: +61288148133

Emergency Telephone No.(24h): +61288148133

E-mail address: compliance@cmselectra.com

This MSDS was prepared by Dongguan ZRLK Testing Technology Co., Ltd.

Referenced documents: ISO 11014:2009 Safety data sheet for chemical products;

### Section 2 – Hazards Identification

	1		
Preparation	When the battery is In extreme pressure deformation, high-temperature environment,		
hazards and classification	overload, short-circuit condition, or disassemble the battery, an explosion of fire and		
classification	chemical burn hazards may occur.		
Apperance, Color, and Odor	Solid object with no odor, no color.		
Primary	These chemicals are contained in a sealed stainless steel enclosure. Risk of exposure		
Route(s) of Exposure	occurs only if the cell is mechanically, thermally or electrically abused to the point of		
Exposure	compromising the enclosure. If this occurs, exposure to the electrolyte solution contained		
	within can occur by Inhalation, Ingestion, Eye contact and Skin contact		
Potential	ACUTE (short term): see Section 8 for exposure controls In the event that this battery		
Health Effects:	has been ruptured, the electrolyte solution contained within the battery would be corrosive		
	and can cause burns.		
	Inhalation: A battery volatilizes no gas unless it was damaged. Damaged battery will		
	volatilize little gas that may stimulate the respiratory tract or cause an anaphylaxis in		
	serious condition.		
	<ul> <li>Ingestion: Swallowing battery will be Damaged to the respiratory tract and Cause chemical burns to the stomach; in serious conditions it will cause Permanent damage.</li> <li>Skin: In normal condition, Contact between the battery and skin will not cause any harms. Contact with a damaged battery may cause skin allergies or chemical burns.</li> <li>Eye: in normal condition, Contact between the battery and eyes will not cause any harms. However, the gas Volatilize from a damaged battery may be harmful to eyes.</li> <li>CHRONIC (long term): see Section 11 for additional toxicological data</li> </ul>		
Medical	Not applicable		
Conditions			
Aggravated by Exposure			
Reported as	Not applicable		
carcinogen			



### Section 3 – Composition/Information on Ingredients

Hazardous Ingredients (Chemical	Concentration or concentration	CAS Number
Name)	ranges (%)	
Nickel compound	0-20	1313-99-1
Manganese compound	0-15	1313-13-9
Cobalt compound	4-50	1307-96-6
Graphite	10-30	7782-42-5
Styrene-Butadiene-Rubber	<1	27288-99-9
Ethylene carbonate Electrolyte	10-20	96-49-1
Polyvinylidene Fluoride	<5	24937-79-9
Aluminum Foil	2-10	7429-90-5
Copper Foil	2-10	7440-50-8
Lithium hexafluorophosphate	<5	21324-40-3

Rechargeable Li-ion Portable Power is a mixture.

Note: CAS number is Chemical Abstract Service Registry Number.

N/A=Not apply.

(\*)Main ingredients: Lithium hexafluorophosphate, organic carbonates

### Section 4 – First-aid Measures

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

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

## Section 6 – Accidental Release Measures

Personal Precautions, protective equipment, and	Restrict access to area until completion of clean-up.
emergency procedures	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.

Handling	Do not dismantle, open or shred secondary <b>Rechargeable Li-ion Portable Power</b> ;
	Don't handling Rechargeable Li-ion Portable Power with metalwork. Do not open, dissemble, 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.
Storage	If the <b>Rechargeable Li-ion Portable Power</b> is subject to storage for such a long term as more than 3 months, it is recommended to recharge the <b>Rechargeable Li-ion Portable Power</b> periodically.
	3 months: -10°C~+40°C, 45 to 85%RH
	And recommended at $0^{\circ}C \sim +35^{\circ}C$ for long period storage.
	The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more.
	Do not storage <b>Rechargeable Li-ion Portable</b> <b>Power</b> haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.
	Keep out of reach of children.
	Do not expose <b>Rechargeable Li-ion Portable</b> <b>Power</b> to heat or fire. Avoid storage in direct sunlight.
	Do not store together with oxidizing and acidic materials.

# Section 7 – Handling and Storage

# Section 8 – Exposure Controls and 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 and body Protection: Not necessary under
	normal conditions, Wear neoprene or nitrile rubber
	gloves if handling an open or leaking battery.
	Hand protection: Wear neoprene or natural rubber
	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

Physical	Form: Prismatic		
State	Odour: Monotony		
Change in condition:			
pH, with indication of the concentration		Not applicable	
Melting poin	nt/freezing point	Not available.	
Boiling Point, initial boiling point and Boiling range:		Not available.	
Flash Point		Not available.	
Upper/lower	r flammability or explosive limits	Not available.	
Vapor Press	ure:	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		Not available.	
Decomposition temperature		Not available.	
Odout threshold		Not available.	
Evaporation rate		Not available.	
Flammability (soil, gas)		Not available.	
Viscosity		Not applicable	



### Section 10 - Stability and Reactivity

Stability	The product is stable under normal conditions.
Conditions to Avoid (e.g. static discharge, shock or vibration)	Do not subject <b>Rechargeable Li-ion Portable</b> <b>Power</b> to mechanical shock. Vibration encoutered 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**

In normal condition, contact with the battery is non-toxic.

### Section 12 - Ecological Information

General note:	Water hazard class 1(Self-assessment): slightly
Ceneral note.	water hazard class ((Sen-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	Not Available
environment/possible environmental	
impace/ecotoxicity.	
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 accumulators; 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 Rechargeable Li-ion Portable Power must be of a design type proved to meet the testing requirements of the Manual of test and criteria, Part III, subsection 38.3;

The Rechargeable Li-ion Portable Power according to Section IB of PACKING INSTRUCTION 965 of the 2021 IATA Dangerous Goods regulations  $62^{nd}$  Edition may be transported. and applicable U.S. DOT regulations for the safe transport of Rechargeable Li-ion Portable Power.

Rechargeable Li-ion Portable Power 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;

Cell and batteries offered for transport must be packed in inner packaging's that completely enclose the cell or battery; to provide protection from damage or compression to the batteries, the inner packaging's must be placed in a strong rigid outer packaging;

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; 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;

UN Proper shipping name/Description (technical name): Lithium ion batteries;

- The International Maritime Dangerous Goods Code 2018 Edition (Amdt.39-18)

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

UN Proper shipping name/Description (technical name): Lithium ion batteries;

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 and 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.

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