

Material Safety Data Sheet

1. Chemical Product and Company Identification

Product name:	Li-polymer Battery, rechargeable
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Battery Model No.	Nominal Voltage	Capacity	Energy content
1260110	3,7 V	20000 mAh	74 Wh

Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	22.01.2019

2. Composition/Information on Ingredient

Chemical Name	Chemical Formula	CAS Number	Composition (in % by weight)
Lithium-nickel-cobalt-manganese oxides	Li(NiCoMn)O ₂	113066-89-0	25-35
Graphite	C	7782-42-5	15-20
Aluminum	Al	7429-90-5	21-23
Copper	Cu	7440-50-8	10-11
Electrolyte	LiPF ₆ +carbonate	623-53-0/21324-40-3	10-15
Polyvinylidene Fluoride	(CH ₂ -CF ₂) _n	24937-79-9	1-5
Acetylene Black	C	1333-86-4	0.5-3

3. Hazards Identification

Explosive risk:

This article does not belong to the explosion dangerous goods

Flammable risk:

This article does not belong to the flammable material

Oxidation risk:

This article does not belong to the oxidation of dangerous goods

Toxic risk:

This article does not belong to the toxic dangerous goods

Radioactive risk:

This article does not belong to the radiation of dangerous goods

Mordant risk:

This article does not belong to the corrosion of dangerous goods

Other risk:

This article is Li-ion Polymer Battery Watt hour rate 74.0Wh , which belong to the Lithium ion batteries.

Material Safety Data Sheet

4. First aid measures

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion:

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

5. Fire-fighting measures

Flash Point:

N/A.

Auto-Ignition Temperature:

N/A.

Extinguishing Media:

Water, CO2.

Special Fire-Fighting Procedures:

Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards:

Cell may vent when subjected to excessive heat-exposing battery contents.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide, lithium oxide fumes.

6. Accidental release measures

Steps to be taken in case Material is Released or Spilled:

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases.

Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

Waste Disposal Method:

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

Material Safety Data Sheet

7. Handling and storage

The battery should not be opened, destroyed or incinerated, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing:

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other Precautions:

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

8. Exposure controls/personal protection

Respiratory Protection:

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

Ventilation:

Not necessary under conditions of normal use.

Protective Gloves:

Not necessary under conditions of normal use.

Other Protective Clothing or Equipment:

Not necessary under conditions of normal use.

Personal Protection is recommended for venting battery:

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

9. Physical and chemical properties

Appearance:	Square
Odour:	If leaking, smells of medical ether
pH:	Not applicable as supplied.
Flash Point:	Not applicable unless individual components exposed.
Flammability:	Not applicable unless individual components exposed.
Relative density:	Not applicable unless individual components exposed.
Solubility (water):	Not applicable unless individual components exposed
Solubility (other):	Not applicable unless individual components exposed.

Material Safety Data Sheet

10. Stability and reactivity

Stability:

Product is stable under conditions described in Section 7.

Conditions to Avoid:

Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

Materials to avoid:

Oxidising agents, alkalis, water.

Hazardous Decomposition Products:

Toxic Fumes, and may form peroxides.

Hazardous Polymerization:

N/A.

Note:

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

11. Toxicological information

Signs & symptoms:

None, unless battery ruptures. In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation:

Lung irritant.

Skin contact:

Skin irritant.

Eye contact:

Eye irritant

Ingestion:

Poisoning if swallowed.

Medical conditions generally aggravated by exposure:

In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

Material Safety Data Sheet

12. Ecological information

Mammalian effects:

None known at present.

Eco-toxicity:

None known at present.

Bioaccumulation potential:

Slowly Bio-degradable

Environmental fate:

None known environmental hazards at present.

13. Disposal consideration

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14. Transport information

Label for conveyance:

Lithium Battery Class 9 Hazard Label, or Cargo Aircraft Only Label.

UN Number:

3480 & 3481

Packaging Group:

N/A

Marine pollutant:

No

Proper Shipping name:

Lithium Ion Batteries (Including Lithium Polymer Batteries), Lithium Ion Battery Packed With Equipment, Lithium Ion Battery Contained In Equipment

Transport information:

Lithium ion battery is of a type proved to meet the Requirements of each test in the UN MANUAL OF TESTS AND CRITERIA, Part III sub-section 38.3 (Report No.: CESUN190102008)

The lithium-ion battery with a watt-hour rating exceeding 100Wh or the cell with the watt-hour rating is exceeding 20Wh, The lithium-ion battery according to Section IA of PACKING INSTRUCTION 965, or Section I of PACKING INSTRUCTION 966~967 of the Dangerous Goods regulations 60th Edition may be transported.

The goods shall be compiled with the Packing Instruction P903 of IMDG CODE(Amdt.39-18)2018 Edition.

Material Safety Data Sheet

15. Regulation information

Law information:

- 《Dangerous Goods Regulations》
- 《Recommendations on the Transport of Dangerous Goods Model Regulations》
- 《International Maritime Dangerous Goods》
- 《Technical Instructions for the Safe Transport of Dangerous Goods》
- 《Classification and code of dangerous goods》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substance Control Act》 (TSCA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Superfund Amendments and Reauthorization Act TitleIII (302/311/312/313)》 (SARA)
- 《Resource Conservation and Recovery Act》 (RCRA)
- 《Safety Drinking Water Act》 (CWA)
- 《California Proposition 65》
- 《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and local laws

16. Other information

This file is only effective to the Battery (model 1260110). We provide the composition in formation of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method.

We doesn't assume responsibility for any damage or loss because of misuse of batteries.