SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 02-Dec-2020 **Revision Date** 02-Dec-2020 **Revision Number** 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name BA2240T Battery Pack

Synonyms Lithium-ion Battery Pack

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Battery

Uses advised against Do not short circuit or expose to temperatures higher than the maximum temperature rating specified by the manufacturer. Do not recharge, over charge or crush any cell or pack. Ensure cells and batteries are safely handled and stored. Review Section 7 completely before use

1.3. Details of the supplier of the safety data sheet

Importer
EGO EUROPE GMBH
Autenbachstraße 11
71711 Steinheim/Murr
Germany
Tel: 0044 1494 957 514

Manufacturer
Nanjing Chervon Industry Co., Ltd.
159 South Jiang Jun Rd. Jiangning
Economic & Technical Development Zone
Nanjing, Jiangsu 211106 P.R. China
Phone: +862552101133

For further information, please contact
E-mail address Joerg.bauerle@egopowerplus.eu; hj.ye@cn.chervongroup.com

1.4. Emergency telephone number

Emergency telephone 0044 1235 239 670 (Available 24/7)

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP] This product is an article and is outside the scope of Regulation (EC) No 1272/2008

2.2. Label elements

Hazard statements
Not classified

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Lithium cobalt nickel oxide 113066-89-0	36	No data available	442-750-5	Acute Tox. 2 (H330) Skin Sens. 1 (H317) Carc. 1A (H350i) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Copper 7440-50-8	24	No data available	231-159-6	Aquatic Chronic 2 (H411)	-	-	-
Graphite 7782-42-5	12	No data available	231-955-3	[C]	-	-	-
Aluminum 7429-90-5	5	No data available	231-072-3	Flam. Sol. 1 (H228) Water-react. 2 (H261)	-	-	-
Phosphate(1-), hexafluoro-, lithium 21324-40-3	2	No data available	244-334-7	Acute Tox. 3 (H301) Skin Corr. 1A (H314) Eye Dam. 1 (H318) STOT RE 1 (tooth, bone) (H372)	-	-	-

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice First aid is upon rupture of sealed battery.

Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor or poison control centre immediately.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Use of water spray when fighting a lithium fire may be inefficient. However, copious amounts of water may be used to cool a battery fire and extinguish any surrounding combustible fires.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.

5.3. Advice for firefighters

Specific/special fire-fighting measures	Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Wash thoroughly after handling.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up During a release, ensure the Personal Protection listed in Section 8 is worn. Neutralize any electrolyte contaminated surfaces with baking soda, soda lime or sodium bicarbonate. Transfer damaged battery and any clean up materials to a sealed container a neutralizing material as stated above. Ensure the container is properly labeled.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Do not crush, pierce, short circuit (+) and (-) battery terminals with conductive (metal) goods. Do not directly heat or solder. Do not throw into fire. Do not mix batteries of different types and brands. Do not mix new and used batteries. Keep batteries in non-conductive (plastic) trays. Cells or batteries that have been dropped or experience mechanical shock should be isolated and monitored for approximately 5 days to identify a possible internal short circuit and resulting fire. Jewelry, and all metal, should be removed before handling batteries to avoid short circuit. Do not breathe dust. Use personal protection equipment.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Elevated temperature (>60◦C) can shorten battery life. Do not store in high humidity environments. Protect from moisture. Never stack heavy objects on top of battery boxes. Do not store near combustible materials. Keep batteries in original packaging until use and do not expose them to unnecessary or excessive handling.

7.3. Specific end use(s)

Specific use(s).
No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits .

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Lithium cobalt nickel oxide 113066-89-0	-	H* Respiratory sensitizer	TWA: 0.2 mg/m³	TWA: 0.05 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m³ TWA: 0.5 mg/m³ STEL: 1 mg/m³ Skin Sensitisation
Copper 7440-50-8	-	TWA: 1 mg/m³ TWA: 0.1 mg/m³ STEL 4 mg/m³ STEL 0.4 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³
Graphite 7782-42-5	-	TWA: 5 mg/m³ STEL 10 mg/m³	TWA: 2 mg/m³	TWA: 5.0 mg/m³	TWA: 4 mg/m³ TWA: 10 mg/m³
Aluminum 7429-90-5	-	TWA: 10 mg/m³ STEL 20 mg/m³	TWA: 1 mg/m³	TWA: 10.0 mg/m³ TWA: 1.5 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland

Lithium cobalt nickel oxide 113066-89-0	-	TWA: 0.05 mg/m³ Ceiling: 0.1 mg/m³ Ceiling: 0.25 mg/m³	TWA: 0.05 mg/m³ TWA: 0.01 mg/m³	TWA: 0.1 mg/m³ TWA: 0.05 mg/m³	TWA: 0.05 mg/m³ TWA: 0.01 mg/m³ TWA: 0.02 mg/m³
Copper 7440-50-8	-	TWA: 1 mg/m³ TWA: 0.1 mg/m³ Ceiling: 2 mg/m³ Ceiling: 0.2 mg/m³	TWA: 1.0 mg/m³ TWA: 0.1 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³	TWA: 0.02 mg/m³
Graphite 7782-42-5	-	TWA: 2.0 mg/m³	TWA: 2.5 mg/m³	TWA: 5 mg/m³	TWA: 2 mg/m³
Aluminum 7429-90-5	-	TWA: 10.0 mg/m³	TWA: 5 mg/m³ TWA: 2 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³	TWA: 1.5 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	-	-	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³	-
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Lithium cobalt nickel oxide 113066-89-0	-	TWA: 0.03 mg/m³	*	TWA: 0.1 mg/m³ TWA: 1 mg/m³	TWA: 0.01 mg/m³ TWA: 0.02 mg/m³
Copper 7440-50-8	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³	-	TWA: 0.01 mg/m³ Peak: 0.02 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³	TWA: 0.1 mg/m³ TWA: 0.01 mg/m³ STEL: 0.2 mg/m³
Graphite 7782-42-5	TWA: 2 mg/m³	TWA: 1.25 mg/m³ TWA: 10 mg/m³	TWA: 0.3 mg/m³ TWA: 4 mg/m³ Peak: 2.4 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	TWA: 5 mg/m³
Aluminum 7429-90-5	TWA: 10 mg/m³ TWA: 5 mg/m³	TWA: 1.25 mg/m³ TWA: 10 mg/m³	TWA: 4 mg/m³ TWA: 1.5 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	TWA: 1 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	-	TWA: 1 mg/m³	TWA: 1 mg/m³ *	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³ *
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
Lithium cobalt nickel oxide 113066-89-0	TWA: 0.02 mg/m³ TWA: 0.5 mg/m³ STEL: 0.3 mg/m³ STEL: 1.5 mg/m³ Sensitizer	-	TWA: 0.02 mg/m³ TWA: 0.2 mg/m³	TWA: 0.05 mg/m³	Sensitizer TWA: 0.05 mg/m³
Copper 7440-50-8	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³ STEL: 0.6 mg/m³	-	TWA: 0.2 mg/m³	TWA: 0.5 mg/m³ STEL: 1 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³
Graphite 7782-42-5	TWA: 2 mg/m³ STEL: 6 mg/m³	-	TWA: 2 mg/m³	TWA: 2 mg/m³	TWA: 5 mg/m³
Aluminum 7429-90-5	TWA: 1 mg/m³ STEL: 3 mg/m³	-	TWA: 1 mg/m³	TWA: 2 mg/m³	TWA: 5 mg/m³ TWA: 2 mg/m³ TWA: 1 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	TWA: 2.5 mg/m³ STEL: 7.5 mg/m³	-	TWA: 2.5 mg/m³	-	TWA: 2.5 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Lithium cobalt nickel oxide 113066-89-0	-	-	-	TWA: 0.05 mg/m³ TWA: 0.02 mg/m³ STEL: 0.15 mg/m³ STEL: 0.06 mg/m³	TWA: 0.25 mg/m³ TWA: 0.02 mg/m³
Copper 7440-50-8	-	-	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³ TWA: 1 mg/m³ STEL: 3 mg/m³ STEL: 0.3 mg/m³	TWA: 0.2 mg/m³
Graphite 7782-42-5	-	-	-	TWA: 5 mg/m³ TWA: 2 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 10 mg/m³	TWA: 4.0 mg/m³ TWA: 1.0 mg/m³

				STEL: 4 mg/m³ STEL: 15 mg/m³ STEL: 8 mg/m³	
Aluminum 7429-90-5	-	-	-	TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 2.5 mg/m³ TWA: 1.2 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	-	-	-	-	TWA: 2 mg/m³

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Lithium cobalt nickel oxide 113066-89-0	TWA: 0.2 mg/m³ TWA: 0.02 mg/m³	TWA: 0.1 mg/m³ STEL: 0.5 mg/m³	TWA: 0.05 mg/m³ Sensitizer	-	TWA: 0.02 mg/m³ TWA: 0.2 mg/m³
Copper 7440-50-8	TWA: 0.2 mg/m³ TWA: 1 mg/m³	TWA: 0.5 mg/m³ STEL: 0.2 mg/m³ STEL: 1.5 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³	-	TWA: 0.1 mg/m³
Graphite 7782-42-5	TWA: 2 mg/m³	TWA: 2 mg/m³	-	-	TWA: 2 mg/m³
Aluminum 7429-90-5	TWA: 10 mg/m³	TWA: 3 mg/m³ TWA: 1 mg/m³ STEL: 10 mg/m³ STEL: 3 mg/m³	TWA: 4 mg/m³ TWA: 1.5 mg/m³	-	TWA: 10 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	TWA: 2.5 mg/m³	-	TWA: 2.5 mg/m³	-	-

Chemical name	Sweden	Switzerland	United Kingdom
Lithium cobalt nickel oxide 113066-89-0	NGV: 0.1 mg/m³ NGV: 0.02 mg/m³ * Sensitizer	TWA: 0.05 mg/m³ H*	TWA: 0.1 mg/m³ TWA: 0.5 mg/m³ Sk* Capable of causing occupational asthma
Copper 7440-50-8	NGV: 0.01 mg/m³	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³ STEL: 0.6 mg/m³ STEL: 2 mg/m³
Graphite 7782-42-5	-	TWA: 2.5 mg/m³ TWA: 5 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Aluminum 7429-90-5	NGV: 5 mg/m³ NGV: 2 mg/m³	TWA: 3 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Phosphate(1-), hexafluoro-, lithium 21324-40-3	NGV: 2 mg/m³	-	-

Biological occupational exposure limits .

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Lithium cobalt nickel oxide 113066-89-0	-	10 µg/L (urine - spontaneous urine after end of work day, at the end of a work week/end of the shift) (-) 7 µg/L (urine - spontaneous urine after end of work day, at the end of a work week/end of the shift)	-	-	-

Aluminum 7429-90-5	-	60 µg/g Creatinine (urine - Aluminum after end of work day, at the end of a work week/end of the shift) (-)	-	200 µg/L - urine (Aluminum) - at the end of the work shift	-
Chemical name	Denmark	Finland	France	Germany	Germany MAK
Lithium cobalt nickel oxide 113066-89-0	-	-	0.015 mg/L - urine (Cobalt) - end of shift at end of workweek 0.001 mg/L - blood (Cobalt) - end of shift at end of workweek	35 µg/L - BLW (for long-term exposures: at the end of the shift after several shifts) urine 1.5 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) urine 3 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) urine	-
Aluminum 7429-90-5	-	-	-	50 µg/g Creatinine (urine - Aluminum for long-term exposures: at the end of the shift after several shifts) 50 µg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine 15 µg/g Creatinine - BAR (for long-term exposures: at the end of the shift after several shifts) urine	50 µg/g Creatinine (urine - Aluminum for long-term exposures: at the end of the shift after several shifts)
Phosphate(1-), hexafluoro-, lithium 21324-40-3	-	-	3 mg/g creatinine - urine (Fluorides) - beginning of shift 10 mg/g creatinine - urine (Fluorides) - end of shift	-	-

Chemical name	Hungary	Ireland	Italy	Italy REL
Lithium cobalt nickel oxide 113066-89-0	-	3 µg/L (urine - Nickel after several consecutive working shifts)	-	15 µg/L - urine (Cobalt) - end of shift at end of workweek
Phosphate(1-), hexafluoro-, lithium 21324-40-3	7 mg/g Creatinine (urine - Fluoride end of shift) 4 mg/g Creatinine (urine - Fluoride prior to next shift) 42 µmol/mmol Creatinine (urine - Fluoride end of shift) 24 µmol/mmol Creatinine (urine - Fluoride prior to next shift)	-	-	2 mg/g Creatinine - urine (Fluorides) - prior to shift 3 mg/g Creatinine - urine (Fluorides) - end of shift

Chemical name	Latvia	Luxembourg	Romania	Slovakia
Aluminum	-	-	200 µg/L - urine	60 µg/g creatinine - urine

7429-90-5			(Aluminum) - end of shift	(Aluminum) - not critical
Phosphate(1-), hexafluoro-, lithium 21324-40-3	-	-	5 mg/g Creatinine - urine (Fluorine) - end of shift	-
Chemical name	Slovenia	Spain	Switzerland	United Kingdom
Aluminum 7429-90-5	200 µg/L - urine (Aluminum) - at the end of the work shift	-	60 µg/g creatinine (urine - Aluminum no restrictions)	-

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls
Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection
None required for normal handling of the finished product. If necessary to handle damaged product where exposure to the electrolyte is a possibility, chemical splash goggles and a face shield are recommended. Eye protection must conform to standard EN 166.

Hand protection
None required for normal handling of the finished product. If necessary to handle damaged product where exposure to the electrolyte is a possibility, chemically resistant gloves are recommended. Gloves must conform to standard EN 374.

Skin and body protection
None required for normal handling of the finished product. If necessary to handle damaged product where exposure to the electrolyte is a possibility, a chemically resistant apron is recommended. (EN ISO 6529).

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
Colour No information available
Odour Odourless
Odour threshold No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known

pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal use conditions.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents. Under normal use, batteries are not incompatible. The electrolyte is incompatible with:

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition can lead to release of toxic/corrosive gases and vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information Exposure is not expected for product under normal conditions of use. In the event of an

exposure to electrolyte the following toxicological information is provided:

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes. (based on components).

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Burning. May cause blindness. May cause redness and tearing of the eyes. Coughing and/or wheezing.

Numerical measures of toxicity

.

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 80,137.00 mg/kg

ATEmix (inhalation-dust/mist) 0.05 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Graphite	-	-	> 2000 mg/m³ (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.

Serious eye damage/eye irritation Causes burns. Risk of serious damage to eyes.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Lithium cobalt nickel oxide	Carc. 1A

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Avoid release to the environment. Toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 64 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Copper	EC50: 0.0426 - 0.0535mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.031 - 0.054mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 0.0068 - 0.0156mg/L (96h, Pimephales promelas) LC50: <0.3mg/L (96h, Pimephales promelas) LC50: =0.2mg/L (96h, Pimephales promelas) LC50: =0.052mg/L (96h, Oncorhynchus mykiss) LC50: =1.25mg/L (96h, Lepomis macrochirus) LC50: =0.3mg/L (96h, Cyprinus carpio) LC50: =0.8mg/L (96h, Cyprinus carpio) LC50: =0.112mg/L (96h, Poecilia reticulata)	-	EC50: =0.03mg/L (48h, Daphnia magna)
Graphite	-	LC50: >100mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment .

Chemical name	PBT and vPvB assessment
Copper	The substance is not PBT / vPvB PBT assessment does not apply
Graphite	The substance is not PBT / vPvB PBT assessment does not apply
Aluminum	The substance is not PBT / vPvB PBT assessment does not apply
Phosphate(1-), hexafluoro-, lithium	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Note:. Intended for All lithium batteries:
Lithium cells and batteries must successfully pass the tests defined in “UN Manual of Tests and Criteria”, Section 38.3 and may require they be manufactured under a Quality Management Program. Lithium Metal and Lithium Ion cells and batteries, when shipped by themselves (not in or with equipment) are forbidden as cargo on passenger aircraft and must be marked as “Cargo Air Only” if shipped by air (they must be marked “Cargo Air Only” for all modes of DOT transport). Lithium Ion cells and batteries, when shipped by themselves (not in or with equipment) by air must be shipped at or below 30% full charge. Note: Some regulations require a summary of test results and/or a copy of the Quality Management Programs be made available for Lithium cells and batteries

IMDG

14.1 UN number or ID number	UN3480
14.2 UN proper shipping name	LITHIUM ION BATTERIES
14.3 Transport hazard class(es)	9
14.4 Packing group	
Description	UN3480, LITHIUM ION BATTERIES(Copper), 9, Marine pollutant
14.5 Environmental hazards	Yes
Marine pollutant	P
14.6 Special Precautions for Users	
Special Provisions	188, 230,310, 348, 376, 377, 384, 387
EmS-No	F-A, S-I
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number	UN3480
14.2 UN proper shipping name	LITHIUM ION BATTERIES
14.3 Transport hazard class(es)	9
Subsidiary hazard class	A
Labels	9A
14.4 Packing group	
Description	UN3480, LITHIUM ION BATTERIES, 9 (A), Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	None
Classification code	M4

ADR

14.1 UN number or ID number UN3480
14.2 UN proper shipping name LITHIUM ION BATTERIES
14.3 Transport hazard class(es) 9
Subsidiary class A
Labels 9A
14.4 Packing group
Description UN3480, LITHIUM ION BATTERIES, 9 (A), Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions 188, 230, 310, 348, 376, 377, 387, 636
Classification code M4
Tunnel restriction code (E)

IATA

14.1 UN number or ID number UN3480
14.2 UN proper shipping name Lithium ion batteries
14.3 Transport hazard class(es) 9
Subsidiary hazard class A
14.4 Packing group
Description UN3480, Lithium ion batteries, 9 (A)
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions A88, A99, A154, A164, A183, A201, A206, A213 A331, A334, A802
ERG Code 9F
Note: None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Graphite 7782-42-5	RG 16 RG 25	-
Aluminum 7429-90-5	RG 32 RG 16,RG 16bis	-

Germany
Water hazard class (WGK) obviously hazardous to water (WGK 2)

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Carcinogens	Netherlands - List of Reproductive Toxins
Lithium cobalt nickel oxide	Present	-	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Lithium cobalt nickel oxide - 113066-89-0	28.	

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H228 - Flammable solid
H261 - In contact with water releases flammable gas
H317 - May cause an allergic skin reaction
H330 - Fatal if inhaled
H350i - May cause cancer by inhalation
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
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End of Safety Data Sheet