

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lithium-Ion Battery Packs

Model Number:

252-8016,252-8017,252-8018,252-8028,252-8029,252-8030,252-8031,252-8032,252-8033,252-8034,252-8035,252-0908.

Company: Nanjing Chervon Industry Co., Ltd.

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Nanjing, Jiangsu 211106 P. R. China

Fax: +8625-52101166

Emergency Phone: +8625-52101133-2630

Note: Batteries may be shipped in kits with the products they are intended to power.

SECTION 2: HAZARDS IDENTIFICATION

Hazards Identification:

Class 9, miscellaneous. The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN38.3.

Emergency Overview:

Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

SECTION 3: INFORMATION ON INGREDIENTS

Ingredient	Concentration	CAS. No.	EC No.
Cobalt oxide	1-15%	1307-96-6	215-154-6
Manganese dioxide	1-15%	1313-13-9	215-202-6
Nickel oxide	1-15%	1313-99-1	215-215-7
Organic electrolyte	2-10%	/	/
Carbon	5-15%	7440-44-0	231-153-3
Iron/Nickel/ Copper/Aluminum	10-20%	7439-89-6/7440-02-0/ 7440-50-8/7429-90-5	231-096-4/231-111-4/ 231-159-6/231-072-3
Nylon/ABS/PC	40-50%	25038-54-4/9003-56-9	/

SECTION 4: FIRST-AID MEASURES

Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.

Eye Exposure:

In case of internal battery materials in contact with eyes, flush with copious amount of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure:

If inhaled the internal materials of battery, remove immediately to refresh air and seek medical attention.

Oral Exposure:

If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Procedure of Personal Precaution:

If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

SECTION 7: HANDLING AND STORAGE

Handling:

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

Storage:

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

SECTION 8: EXPOSURE CONTROL/PPE

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Green and black plastics cement shell

Odor: Odorless

Melting Point/°C: >300 °C

Solubility: Partial soluble in water

SECTION 10: STABILITY AND REACTIVITY

Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Avoid exposure to heat and open flame. Avoid medical or electrical abuse. Prevent short circuits. Prevent movement which could lead to short circuits.

Materials to Avoid:

Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Metal oxides, CO, CO₂.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data: Not available.

Irritation Data: The internal battery materials may cause irritation to eyes and skin.

SECTION 12: ECOLOGICAL INFORMATION

No data available.

SECTION 13: DISPOSAL CONSIDERATION

Appropriate Method of Disposal of Substance:

Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

SECTION 14: TRANSPORT INFORMATION

RID/ADR: Proper Shipping Name: Lithium ion batteries

UN Number: UN 3480

Hazard Class: 9

Packing Group: II

IATA: Proper Shipping Name: Lithium ion batteries

UN Number: UN 3480

Hazard Class: 9

Packing Group: II

The product shall meet the General Requirements and section IA of Packaging Instruction 965 (IATA DGR)

IMO: Proper Shipping Name: Lithium ion batteries

UN Number: UN 3480

Hazard Class: 9

Packing Group: II

EMS No: F-A, S-I

SECTION15: REGULATORY INFORMATION

US DOT Effective December 29, 2004, the DOT requires that the outside of each package that contains primary lithium batteries, regardless of size or number of batteries, be labeled with the following statement:"

PRIMARY LITHIUM BATTERIES- FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT".

The labeling requirement covers shipments via highway, rail, vessel or cargo-only aircraft and covers all shipment inside, into or out of the US. The label must be in contrasting color and the letters must be 12mm (0.5 in) in height for packages weighing more than 30Kg and 6mm (0.25 in) in height for packages weighing less than 30Kg.

SECTION16: OTHER INFORMATION

Issue Date: 2015/09/17

Revision: v1.0

Other Information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make 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 investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising from using the above information.

End of the Material Safety Data Sheet