MSDS Report

Sample Description : **Lithium-ion Battery**
Model : **M 552445**

Applicant : **Dongguan Miyear battery Co., LTD**

Address: **No. 44 Shahe Road, Four villages, Tangxia Town, Dongguan City**

时间信息/Date	
鉴定日期/Inspection Date.....：	2024-01-01
签发日期/Issue Date.....：	2024-01-01
报告有效期/Period of Validity.....：	2024-12-31

Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.6(GHS)

Section 1 - Chemical Product and Company Identification

Chemical product identification
Sample Description: Lithium-Ion Battery
Sample Model:M 552445
Recommended Uses: N/A
Restrictions on use: N/A

Supplier name:Dongguan Miyear battery Co., LTD

Address: No. 44 Shahe Road, Four villages, Tangxia Town, Dongguan City

Phone number: 0769-82065366
FAX: 0769-82065366
E-mail: market33@miyear.com
Emergency phone number: 13603034865

Section 2 - Hazards Identification

Emergency overview: This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery.
In case of rupture: the below hazards exist.

CAS#7429-90-5
Classification according to GHS
Substances and mixtures which, in contact with water, emit flammable gases(2,3)
Specific target organ toxicity, repeated exposure(1)(Lung)
Hazardous to the aquatic environment, long-term hazard(4)

Label elements

Hazard pictogram(s):



Signal word:

Hazard statement(s):
H261 In contact with water releases flammable gas
H372 Causes damage to organs through prolonged or repeated exposure(Lung)
H413 May cause long lasting harmful effects to aquatic life
Precautionary statement(s):

Prevention:
P223 Do not allow contact with water.
P231+P232 Handle and store contents under inert gas, Protect from moisture.
P280 Wear protective gloves, protective clothing, eye protection and face protection.
P260 Do not breathe dust.
P264 Wash skin and clothing thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.

Response:
P302+P335+P334 IF ON SKIN: Brush off loose particles from skin and immerse in cool water.
P370+P378 In case of fire: Use the appropriate media put out the fire.
P314 Get medical advice if you feel unwell.

Storage
P402+P404 Store in a dry place. Store in a closed container.

Disposal:
P501 Contents handling to approved waste treatment plants.

CAS#7440-50-8

Classification according to GHS
Sensitisation, skin(1,1A,1B)
Specific target organ toxicity, single exposure(1)(digestive system)
Specific target organ toxicity, single exposure;Respiratory tract irritation(3)

Label elements

Hazard pictogram(s):



Signal word:
H317 May cause an allergic skin reaction
H370 Cause damage to organs(digestive system)H335 May cause respiratory irritation

Precautionary statemet(s):

Prevention:

P260 Do not breathe dust, fume.
P272 Contaminated work clothing should not be allow out of the workplace.
P280 Wear protective gloves, eye protection, face protection.
P264 Wash skin and clothing thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Response:

P302+P352 IF ON SKIN: Wash with plenty water.
P333+P313 If skin irritation or rash occurs: Get medical advice.
P321 Specific treatment(See additional emergency instructions).
P362+P364 Take off contaminated clothing and wash it before reuse.
P308+P311 IF exposed or concerned: Call a POISON CENTER.
P304+P340 IFINHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER if you feel unwell.

Storage

P403+P233 in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Contents handling to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11

Environmental hazards: See Section 12

Section 3 – Composition/Information on Ingredients

Chemical characterization: Mixture

Chemical Composition		**CAS No.**	**EC#**	**Weight(%)**
Lithium Cobalt Oxide		12190-79-3	235-362-0	37. 30
Graphite		7782-42-5	231-955-3	19. 40
Aluminum		7429-90-5	231-072-3	5. 00
Copper		7440-50-8	231-159-6	11. 30
Electrolyte		21324-40-3	244-334-7	14. 20
Diaphragm		9002-88-4	200-815-3	3. 80
Aluminum Plastic Film	Nylon-6	25038-54-4	200-469-3	4. 50
	Aluminum	7429-90-5	231-072-3	
	Polypropylene	9003-07-0		
Others		---	---	4. 50

Section 4 - First Aid Measures

Description of first aid measures

General information No special measure required.

After eye contact

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

After skin contact

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After inhalation
Remove victim to fresh area. Administer artificial response if breathing is difficult. Seek medical attention.
After swallowing
Do not induce vomiting. Get medical attention.

Personal protective equipment for first-aid responders: No date available.
Most important symptoms/effects, acute and delayed: No date available.
Indication of immediate medical attention and special treatment needed: No date available.

Section 5 - Fire Fighting Measures

Suitable extinguishing media:
Use extinguishing agent suitable for local conditions and the surrounding environment.
Such as dry powder, CO_2 .
Unsuitable extinguishing media:
No data available.
Specific Hazards arising from the chemical:
Special hazards arising from the substance or mixture
Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature(>150 ℃ (302 ℉)), when damaged or abused(e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.
Specific protective actions for fire-fighters:
Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6 - Accidental Release Measures

Personal precautions:
Wear protective equipment. Keep unprotected persons away. Ensure ad3equate ventilation
Protective equipment:
No date available.
Emergency procedures:

Remove ignition sources, evacuate area. Sweep up using a method that

does not generate dust. Collect as much of the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

Environment precautions:
Do not allow material to be release to the environment without proper governmental permits.

Methods and materials for containment and cleaning up:
All waste must refer to the United Nations, the national and local regulations for disposal.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7 - Handling and Storage

Precautions for safe handling:
Consumption of food and beverage should be avoided in work areas.
Wash hands with soap and water before eating, drinking.
Ground containers when transferring liquid to prevent static accumulation and discharge.
Information about fire and explosion protection
Battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.
Conditions for safe storage, including any incompatibilities:
Requirements to be met by storerooms and receptacles
Store in a cool, dry, well-ventilated place.
Information about storage in one common storage facility
Keep away from heat, avoiding the long time of sunlight.
Further information about storage conditions
Keep container tightly sealed.
Specific and use
No data available.

Section 8 - Exposure Controls/Personal Protection

Control parameters:

CAS No.	ACGIH	NIOSH	OSHA
12190-79-3	N/A	N/A	N/A

7782-42-5	TLV-TWA2mg/m^3	REL-TWA2.5mg/m^3	PEL-TWA 15mppcf PEL-TWA 20mppcf
7429-90-5	TLV-TWA1mg/m^3	REL-TWA2mg/m^3 REL-TWA5mg/m^3 REL-TWA10mg/m^3	PEL-TWA 5mg/m^3 PEL-TWA 15mg/m^3
7440-50-8	TLV-TWA0.2mg/m^3 TLV-TWA1mg/m^3	REL-TWA1mg/m^3 REL-TWA0.1mg/m^3	PEL-TWA0.1mg/m^3 PEL-TWA 1mg/m^3
21324-40-3	N/A	N/A	N/A
9002-88-4	N/A	N/A	N/A
25038-54-4	N/A	N/A	N/A
9003-07-0	N/A	N/A	N/A

Appropriate engineering controls:
The usual precautionary measures for handling chemicals should be follow.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Personal Protective Equipment
Respiratory protection: Wear suitable protective mask in order to reduce the respiratory system. A large number of leakage, wear chemical protective clothing, including self-contained breathing apparatus.
Hand Protection: Wear appropriate protective gloves to reduce skin contact.
Eyes Protection: Wear safety goggles or eye protection combined with respiratory protection.
Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Colour:	Silver
Physical State:	Prismatic
Odour:	Not available
Odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	Not available
Evaporation rate:	Not available

Flammability(solid, gas):	Not available
Explosion Limits(vol% in air):	Not available
Vapour pressure, kPa at20℃:	Not available
Vapor density:	Not available
Density/Relative density(water=1):	Not available
Solubility(ies):	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
Other information:	
Voltage	3.7V
Electric capacity	600mAh
Electric Energy	2.22Wh

Section 10 - Stability and Reactivity

Reactivity: No data available.
Chemical stability: Stable.
Possibility of hazardous reactions: No data available.
Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.
Incompatibilities materials: Oxidizing agents, acid, base.
Hazardous decomposition products: Carbon monoxide, carbon, dioxide, lithium oxide fumes.

Acute Toxicity:

CAS No.	LC50/LD50
12190-79-3	No data available
7782-42-5	No data available
7429-90-5	No data available
7440-50-8	No data available
25038-54-4	No data available
9003-07-0	No data available

Skin corrosion/irritation: No data available.
Serious eye damage/irritation: No data available..
Respiratory or Skin sensitization: No data available.
Germ Cell mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive toxicity: No data available.
Specific target organ toxicity-Single exposure: No data available.

Aspiration hazard: No data available.
Information on the likely routes of exposure: No data available.
Eye: No data available.
Skin: No data available.
Ingestion: No data available.
Inhalation: No data available.

Section 12 - Ecological Information

Ecological Toxicity: No data available.
Persistence and degradability: No data available.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.
Other adverse effects: No data available.

Section 13 - Disposal Considerations

Disposal methods:
Recommendation:
Consult state, local or national regulations to ensure proper disposal.

Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

Section 14 - Transport Information

UN Number	
IATA	UN3481
IMDG	UN3481
UN Proper shipping name	
IATA	Lithium ion batteries contained in equipment
IMDG	LITHIUM ION BATTERY CONTAINED IN EQUIPMENT
Transport hazard class(es)	
IATA	9
IMDG	9
Packing group	
IATA	N/A
IMDG	N/A
Packing Sign	
IATA	N/A
IMDG	N/A
Environmental hazards	
Marine pollutant	No
Special precautions for user	Not applicable

Transport information: The Lithium-Ion BatteryM 542445has passed thetestUn38.3.
According to the Packing Instruction 967 section II of IATA DGR 65th Editionfor transportation.
According to the special p rovision 188 of IMDG(41-22).The products are notsubject to dangerousgoods.
Note: Batteries weight in the package<5kg (By air, Batteries installed in equipment).
Transport Fashion: By air, by sea.

Section 15 - Regulatory Information

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

CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ELINCS/NLP
12190-79-3	Listed	Listed	Listed DSL	Listed
7782-42-5	Listed	Listed	Listed DSL	Listed
7429-90-5	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
25038-54-4	Listed	Listed	Listed DSL	Listed
9003-07-0	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Issue Time: 2024-01-01 Issue Department: Technical department
Modification record:
Notice to reader

To the best of out knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any materials is the sole responsibility of the user. All material may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other information:
CAS:(Chemical Abstracts Service);

EC:(European Commission);
ACGIH:(American Conference of Governmental Industrial Hygienists);
NIOSH:(US National Institute for Occupational Safety and Health);
OSHA:(US Occupational Safety and Health);
TLV:(Threshold Limit Value);
TWA:(Time Weighted Average);
STEL:(Short Term Exposure Limit);
PEL:(Permissible Exposure Level);
REL:(Recommended Exposure Limit);
PC-STEL:(Permissible concentration-time weighted average);
PC-TWA:(Permissible concentration-short time Exposure limit);
LC50:(Lethal concentration, 50 percent kill);
LD50:(Lethal dose, 50 percent kill);
IARC:(International Agency for Research on Cancer);
EC50:(Median effective concentration);
BCF:(Bioconcentration Factor);
BOD:(Biochemical oxygen demand);
NOEC:(No observed effect concentration);
NTP:(US National Toxicology Program);
RTECS:(Registry of Toxic Effects of Chemical Substances);
IATA:(International Maritime Dangerous Goods);
TDG:(Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
TOC:(Total Organic Carbon);
TSCA:(Toxic Substances List of Canada);
DSL:(the Domestic Substances List of Canada);
NDSL:(the Non-domestic Substances List of Canada);

End of report