

**8M6010612****Safety Data Sheet**according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 9/9/2022 Version: 1.0**SECTION 1: Identification****1.1. Identification**Product form : Article  
Product name : 8M6010612**1.2. Recommended use and restrictions on use**

Use of the substance/mixture : Electrical batteries and accumulators

**1.3. Supplier**Mercury Marine©  
Fond du Lac  
Wisconsin, 54936-1939  
[www.mercurymarine.com/sds](http://www.mercurymarine.com/sds) - [www.mercurymarine.com](http://www.mercurymarine.com)**1.4. Emergency telephone number**Emergency number : CHEMTREC Emergency:  
800-424-9300 24 Hours a Day / 24 heures par jour  
703-527-3887 International Calls / Appels internationaux**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS US classification**

Not classified

**2.2. GHS Label elements, including precautionary statements****GHS US labeling**

Precautionary statements (GHS US) : P103 - Read label before use.

**2.3. Other hazards which do not result in classification**

Other hazards which do not result in classification : No hazards in case of an intact battery and using according the instructions. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

**SECTION 3: Composition/Information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

Name	Product identifier	Conc. (% w/w)	GHS US classification
cobalt lithium manganese nickel oxide	CAS-No.: 346417-97-8	< 30	Skin Sens. 1, H317 Carc. 2, H351
Graphite	CAS-No.: 7782-42-5	< 15	Not classified

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	Conc. (% w/w)	GHS US classification
Ethylene carbonate	CAS-No.: 96-49-1	< 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT RE 2, H373
Lithium hexafluorophosphate(1-)	CAS-No.: 21324-40-3	< 5	Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314 STOT RE 1, H372

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: This information is of relevance only if the battery is broken and this results in a direct contact with the ingredients. If medical advice is needed, have product container or label at hand. Seek medical attention immediately. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Remove/Take off immediately all contaminated clothing. Get immediate medical advice/attention.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. immediate medical advice. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting without medical advice. immediate medical advice.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Inhalation of material from a sealed battery is not an expected exposure route. Vapors or mists from a ruptured battery may cause respiratory irritation.
Symptoms/effects after skin contact	: Contact between the battery and skin will not cause any harm. Skin contact with positive and negative terminals of high voltages may cause burns to the skin. Skin contact with a ruptured or shorted battery can cause chemical burns or irritation upon contact with the skin.
Symptoms/effects after eye contact	: Contact between the battery and eye will not cause any harm. Eye contact with the contents of a ruptured battery can cause severe irritation to the eye.
Symptoms/effects after ingestion	: Swallowing of material from a sealed battery is not an expected exposure route. Swallowing mists from a ruptured battery may cause respiratory irritation, chemical burns of the mouth and gastrointestinal tract irritation.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry powder. Carbon dioxide. Sand.
Unsuitable extinguishing media	: Water.

#### 5.2. Specific hazards arising from the chemical

Explosion hazard	: Explosion risk in case of fire.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon oxides (CO, CO2).

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. acid-resistant protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : If the battery material is released, remove personnel from the area until fumes dissipate. Ventilate the area to remove the hazardous gases. Leave the area and allow the batteries to cool. Avoid skin and eye contact or inhalation of vapors.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". Concerning disposal elimination after cleaning, see item 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful. Concerning personal protective equipment to use, see item 8. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Charging:  
There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position.

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids. Strong oxidizing agent.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

8M6010612

No additional information available

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>cobalt lithium manganese nickel oxide (346417-97-8)</b>	
No additional information available	
<b>Graphite (7782-42-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Graphite (all forms excepte graphite fibers)
ACGIH OEL TWA	2 mg/m <sup>3</sup> (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pneumoconiosis
Regulatory reference	ACGIH 2022
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Graphite (Natural)
OSHA PEL (TWA) [1]	15 mg/m <sup>3</sup>
OSHA PEL (TWA) [2]	15 mppcf
Remark (OSHA)	Table Z-3. CAS No. source: eCFR Table Z-1.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
<b>USA - NIOSH - Occupational Exposure Limits</b>	
NIOSH REL (TWA)	2.5 mg/m <sup>3</sup>
Remark (NIOSH)	(respirable dust)
<b>Ethylene carbonate (96-49-1)</b>	
No additional information available	
<b>Lithium hexafluorophosphate(1-) (21324-40-3)</b>	
No additional information available	

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. hazards in case of damaged / ruptured battery.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

<b>Hand protection:</b>				
Protective gloves				
Type	Material	Permeation	Thickness (mm)	Penetration
Gloves	Polyvinylchloride (PVC), Nitrile rubber (NBR)	6 (> 480 minutes)	≥0.11	
<b>Eye protection:</b>				
Safety glasses. DIN EN 166				
<b>Skin and body protection:</b>				
Wear suitable protective clothing				

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of inadequate ventilation wear respiratory protection. EN 143

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: cylindrical cells.
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.4. Conditions to avoid

The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful. Do not immerse in water, short circuit or overcharge. Keep away from heat and direct sunlight.

### 10.5. Incompatible materials

Strong acid. Strong bases. Strong oxidizing agent.

### 10.6. Hazardous decomposition products

Explosion risks of vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Ethylene carbonate (96-49-1)

ATE US (oral)	500 mg/kg body weight
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#### Lithium hexafluorophosphate(1-) (21324-40-3)

ATE US (oral)	100 mg/kg body weight
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Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

#### Ethylene carbonate (96-49-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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#### Lithium hexafluorophosphate(1-) (21324-40-3)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.  
Symptoms/effects after inhalation : Inhalation of material from a sealed battery is not an expected exposure route. Vapors or mists from a ruptured battery may cause respiratory irritation.  
Symptoms/effects after skin contact : Contact between the battery and skin will not cause any harm. Skin contact with positive and negative terminals of high voltages may cause burns to the skin.  
Skin contact with a ruptured or shorted battery can cause chemical burns or irritation upon contact with the skin.  
Symptoms/effects after eye contact : Contact between the battery and eye will not cause any harm. Eye contact with the contents of a ruptured battery can cause severe irritation to the eye.  
Symptoms/effects after ingestion : Swallowing of material from a sealed battery is not an expected exposure route. Swallowing mists from a ruptured battery may cause respiratory irritation, chemical burns of the mouth and gastrointestinal tract irritation.

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations.

Additional information





: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

Ecology - waste materials

: Avoid release to the environment.

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
3480	UN3480	3480	3480
<b>14.2. Proper Shipping Name</b>			
Lithium ion batteries	LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	Lithium ion batteries
<b>Transport document description</b>			
UN3480 Lithium ion batteries, 9	UN3480 LITHIUM ION BATTERIES, 9	UN 3480 LITHIUM ION BATTERIES, 9	UN 3480 Lithium ion batteries, 9A
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9A
			
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT	TDG	IMDG	IATA
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

### 14.6. Special precautions for user

#### DOT

UN-No.(DOT) : UN3480

DOT Special Provisions (49 CFR 172.102) : 388 - a. Lithium batteries containing both primary lithium metal cells and rechargeable lithium ion cells that are not designed to be externally charged, must meet the following conditions: i. The rechargeable lithium ion cells can only be charged from the primary lithium metal cells; ii. Overcharge of the rechargeable lithium ion cells is precluded by design; iii. The battery has been tested as a primary lithium battery; and iv. Component cells of the battery must be of a type proved to meet the respective testing requirements of the Manual of Tests and Criteria, part III, subsection 38.3 (IBR, see 171.7 of this subchapter). b. Lithium batteries conforming to paragraph a. of this special provision must be assigned to UN Nos. 3090 or 3091, as appropriate. When such batteries are transported in accordance with 173.185(c), the total lithium content of all lithium metal cells contained in the battery must not exceed 1.5 g and the total capacity of all lithium ion cells contained in the battery must not exceed 10 Wh.

422 - When labelling is required, the label to be used must be the label shown in §172.447. Labels conforming to requirements in place on December 31, 2016 may continue to be used until December 31, 2018. When a placard is displayed, the placard must be the placard shown in §172.560.

A54 - Lithium batteries or lithium batteries contained or packed with equipment that exceed the maximum gross weight allowed by Column (9B) of the 172.101 Table may only be transported on cargo aircraft if approved by the Associate Administrator.

A100 - Primary (non-rechargeable) lithium batteries and cells are forbidden for transport aboard passenger carrying aircraft. Secondary (rechargeable) lithium batteries and cells are authorized aboard passenger carrying aircraft in packages that do not exceed a gross weight of 5 kg.

DOT Packaging Exceptions (49 CFR 173.xxx) : 185

DOT Packaging Non Bulk (49 CFR 173.xxx) : 185

DOT Packaging Bulk (49 CFR 173.xxx) : 185

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 35 kg

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

#### TDG

UN-No. (TDG) : UN3480



### TDG Special Provisions

- : 34 - (1) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of lithium cells and batteries on a road vehicle, a railway vehicle or a vessel on a domestic voyage if
- (a) for a lithium metal or lithium alloy cell, the lithium content is not more than 1 g, and, for a lithium-ion cell, the watt-hour rating is not more than 20 Wh;
  - (b) for a lithium metal or lithium alloy battery, the aggregate lithium content is not more than 2 g, and for a lithium-ion battery, the watt-hour rating is not more than 100 Wh;
  - (c) lithium ion batteries are marked with the watt-hour rating on the outside case, except for those manufactured before January 1, 2009;
  - (d) each cell and battery type passes each of the tests set out in paragraph 2.43.1(2)(a) of Part 2 (Classification);
  - (e) the cells and batteries are afforded protection against short circuit, including protection against contact with conductive materials within the same packaging that could lead to a short circuit;
  - (f) the cells and batteries are packed in a means of containment that completely encloses the cells and batteries;
  - (g) the gross mass of the cells and batteries does not exceed 30 kg, except when the cells and batteries are installed in or packed with equipment; and
  - (h) the cells and batteries are packed in a means of containment capable of withstanding a 1.2 m drop test in any orientation without damage to the cells or batteries contained inside the means of containment, without the contents shifting so as to allow battery-to-battery or cell-to-cell, contact, and without release of contents.
- (2) Cells and batteries referred to in subsection (1) that are installed in equipment must, unless they are afforded equivalent protection by the equipment in which they are contained,
- (a) be afforded protection against damage and short circuit, including protection against contact with conductive materials within the same packaging that could lead to a short circuit;
  - (b) subject to subsection (3), be fitted to prevent accidental activation; and
  - (c) be packed in a means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety.
- (3) Paragraph (2)(b) does not apply to cells and batteries installed in devices that are intentionally active during transport such as radio frequency identification transmitters, watches and sensors, and that are not capable of generating a dangerous evolution of heat.
- (4) Except for means of containment containing button cell batteries installed in equipment, including circuit boards, or no more than four cells installed in equipment or no more than two batteries installed in equipment, each means of containment must be marked with the appropriate lithium battery mark in accordance with section 4.24.
- (5) Despite subsection (4), except for means of containment containing button cell batteries installed in equipment, including circuit boards, or no more than four cells installed in equipment or no more than two batteries installed in equipment, each means of containment may, until December 31, 2018, be marked with the following:
- (a) "lithium metal", "lithium métal", "lithium ion" or "lithium ionique", as appropriate;
  - (b) an indication that the means of containment must be handled with care and that a flammability hazard exists if the means of containment is damaged;
  - (c) an indication that special procedures must be followed in the event the means of containment is damaged, including inspection and repacking, if necessary; and
  - (d) a telephone number to call for additional information, 123 - (1) The testing requirements in subsection 38.3 of Part III of the Manual of Tests and Criteria do not apply to production runs consisting of not more than 100 cells and batteries or to pre-production prototypes of cells and batteries that are transported on a road vehicle, a railway vehicle or a vessel on a domestic voyage if
- (a) the cells or batteries are imported, offered for transport, handled or transported in accordance with Packing Instruction P910 of the UN Recommendations; and
  - (b) the pre-production prototypes of cells and batteries are in transport for the purpose of testing.
- (2) Despite paragraph (1)(b), batteries that have a total mass of 12 kg or more and that have a strong, impact-resistant outer casing, or assemblies of them, may be packed in an outer means of containment or protective enclosure designed, constructed, filled, closed, secured and

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety. The batteries or battery assemblies must be protected from short-circuit, 137 - (1) This shipping name applies to lithium ion cells or batteries, and lithium metal cells or batteries, that are damaged or defective and do not conform to subsection 2.43.1(2) of Part 2 (Classification).

(2) Lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective, include, but are not limited to, cells or batteries that have leaked or vented, or have sustained physical or mechanical damage, and cannot be diagnosed prior to transport, or that have been identified as being defective for safety reasons.

(3) Lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective must be packed in accordance with Packing Instructions P908 or LP904 of the UN Recommendations, as applicable.

(4) As applicable, the outer means of containment or the overpack must be marked legibly and visibly on a contrasting background, with the words "Damaged/Defective Lithium Ion Batteries", "piles au lithium ionique endommagées/défectueuses", "Damaged/Defective Lithium Metal Batteries" or "piles au lithium métal endommagées/défectueuses".

(5) It is forbidden to transport lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective and that, under normal conditions of transport, are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours.

(6) It is forbidden to transport by aircraft lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective, 138 - (1) When transported for disposal or recycling, lithium ion cells or batteries and lithium metal cells or batteries, or equipment containing those cells or batteries,

(a) are not subject to subsection 2.43.1(2) of Part 2 (Classification);

(b) must be packed in accordance with Packing Instructions P909 or LP904 of the UN Recommendations, as applicable, whether packed with or without non-lithium cells or batteries or equipment containing those cells or batteries;

(c) must be in a means of containment or an overpack that is marked legibly and visibly on a contrasting background with the words "Lithium batteries for disposal", "Piles au lithium destinées à l'élimination", "Lithium batteries for recycling" or "Piles au lithium destinées au recyclage", as appropriate; and

(d) are forbidden for transport by aircraft.

(2) Damaged or defective cells and batteries must be offered for transport or transported under special provision 137,159 - (1) Subject to subsection (2), the label to be used for these dangerous goods is the one illustrated under the heading for lithium batteries "Class 9, Lithium Batteries" in the appendix to Part 4 (Dangerous Goods Safety Marks).

(2) The generic Class 9 label may be used until December 31, 2018.

Explosive Limit and Limited Quantity Index	: 0
Excepted quantities (TDG)	: E0
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 5 kg
Emergency Response Guide (ERG) Number	: 147

### IMDG

Special provision (IMDG)	: 188, 230, 310, 348, 376, 377, 384, 387
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-I - SPILLAGE SCHEDULE India - FLAMMABLE SOLIDS (REPACKING POSSIBLE)
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW19
Properties and observations (IMDG)	: Electrical batteries containing lithium ion encased in a rigid metallic body. Lithium ion batteries may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fire due to an explosive rupture of the body caused by improper construction or reaction with contaminants.

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### IATA

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: See 965
CAO max net quantity (IATA)	: See 965
Special provision (IATA)	: A88, A99, A154, A164, A183, A201, A206, A213, A331, A334, A802
ERG code (IATA)	: 12FZ

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
cobalt lithium manganese nickel oxide	346417-97-8	Present	Active	PMN;S;5E
Graphite	7782-42-5	Present	Active	
Ethylene carbonate	96-49-1	Present	Active	
dimethyl carbonate	616-38-6	Present	Active	
Lithium hexafluorophosphate(1-)	21324-40-3	Present	Active	PMN

### 15.2. International regulations

#### CANADA

##### **cobalt lithium manganese nickel oxide (346417-97-8)**

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

##### **Graphite (7782-42-5)**

Listed on the Canadian DSL (Domestic Substances List)

##### **Ethylene carbonate (96-49-1)**

Listed on the Canadian DSL (Domestic Substances List)

##### **Lithium hexafluorophosphate(1-) (21324-40-3)**

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### **Graphite (7782-42-5)**

Listed on INSQ (Mexican National Inventory of Chemical Substances)

# 8M6010612

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 15.3. US State regulations

Component	State or local regulations
Graphite(7782-42-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Ethylene carbonate(96-49-1)	U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) List
dimethyl carbonate(616-38-6)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Data sources

: according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations.

Other information

: REACH Disclaimer:

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### Full text of H-phrases

H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

### Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association

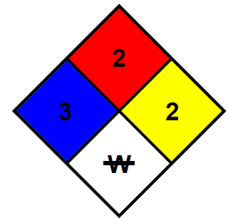
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## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Abbreviations and acronyms	
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
GHS	GHS: Globally Harmonized System of Classification and Labelling of Chemicals

- NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
- NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
- NFPA reactivity : 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.
- NFPA specific hazard : W - Materials that react violently or explosively with water.



- Hazard Rating
- Health : 0 Minimal Hazard - No significant risk to health
- Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

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