

Report No.: 158279069a 001 Page 1 of 16

Client: ECOFLOW INNOVATION LTD.

Contact Information: Floor 1, Building E-1, Jiehe Industrial City, Shuitian Community, Shiyan Street, Baoan District, Shenzhen

Test item(s): Non toys

**Identification/
Model No(s):** Rechargeable Li-ion Battery Pack

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2023-09-16

Testing Period: 2023-09-15 to 2023-10-12

Place of testing: Chemical laboratory Hong Kong

Test Specification:

Material Safety Data Sheets (MSDSs) according to OSHA's Hazard Communication Standard (HCS).

Test result:

Refer to result page

Other information:

As per request, the SDS is prepared based on the composition provided by the client.

This review is sub-contracted to a qualified toxicologist.

For and on behalf of
TÜV Rheinland Hong Kong Ltd.

2023-10-12

Date



Amenda Yung / Senior CS Manager

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.
"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

Rechargeable Li-ion Battery Pack

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)
Issue date: 9/22/2023 Revision date: 9/22/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Article
Trade name : Rechargeable Li-ion Battery Pack

1.2. Recommended use and restrictions on use

Recommended use : Storage Energy
Restrictions on use : No information available.

1.3. Supplier

Supplier

EcoFlow Innovation Ltd.
Floor 1, Building E-1, Jiehe Industrial City, Shuitian Community, Shiyan
Street, Baoan District, Shenzhen
518108
Taylor TANG: +86-13575003981
T 0755-89686665
ltang@highpowertech.com

Importer

EcoFlow Technology Inc
200 CONTINENTAL DRIVE SUITE 401, OFFICE 434, NEW AR DE19713 USA

1.4. Emergency telephone number

Emergency number : +1 800-368-8604

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not applicable under normal use in accordance with Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200.

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) : Not applicable under normal use.
Signal word (GHS US) : Not applicable under normal use.
Hazard statements (GHS US) : Not applicable under normal use.
Precautionary statements (GHS US) : Not applicable under normal use.

2.3. Other hazards which do not result in classification

Other hazards : This product is safe with normal use. Exposure to the ingredients contained within and/or their combustion products could be harmful. Risk of exposure occurs only if the battery is mechanically, thermally, or electrically abused and the enclosure is ruptured. If this occurs, exposure to electrolyte can occur by inhalation, ingestion, eye contact, and skin contact. The battery should not be opened or burned.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

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3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Phosphoric acid, iron(2+) lithium salt (1:1:1)	CAS-No.: 15365-14-7	≤ 39.8
Graphite	CAS-No.: 7782-42-5	≤ 19.8
Other Material	CAS-No.: -	≤ 10.3
Copper	CAS-No.: 7440-50-8	≤ 6.2
1,3-Dioxolan-2-one	CAS-No.: 96-49-1	≤ 4
Dimethyl carbonate	CAS-No.: 616-38-6	≤ 4
Aluminum	CAS-No.: 7429-90-5	≤ 3.8
Aluminum Case	CAS-No.: -	≤ 3.6
Anode Cover	CAS-No.: -	≤ 2.5
Cathode Cover	CAS-No.: -	≤ 2.1
Phosphate(1-), hexafluoro-, lithium	CAS-No.: 21324-40-3	≤ 1.9
1,1-Difluoroethylene polymer	CAS-No.: 24937-79-9	≤ 0.8
Styrene-butadiene copolymer	CAS-No.: 9003-55-8	≤ 0.8
Sodium carboxymethyl cellulose	CAS-No.: 9004-32-4	≤ 0.4

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	: In all cases of doubt, or when symptoms persist, seek medical attention. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.
First-aid measures after inhalation	: Not an expected route of exposure.
First-aid measures after skin contact	: Not an expected route of exposure.
First-aid measures after eye contact	: Not an expected route of exposure.
First-aid measures after ingestion	: Not an expected route of exposure.

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

Symptoms/effects	: No information available.
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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	: Water, dry chemical powder, carbon dioxide (CO ₂) and foam are most effective to extinguish a battery fire.
Unsuitable extinguishing media	: Do not use small quantities of water. If water spray is used, it must be continually applied until fire is extinguished.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Battery may vent when subjected to excessive heat-exposing, fire or over voltage condition. Risk of explosion by fire is anticipated if batteries are disposed of in fire. Firefighting water runoff and dilution water may be toxic and corrosive and may cause adverse environmental impacts. Burning cells may ignite other cells or objects within close proximity.
- Hazardous decomposition products in case of fire : If a cell vents and exposes lithium hexafluorophosphate mixed with water vapor, this could create a poisonous gas of hydrogen-fluoride gas. Degradation of the cell by heat may produce hazardous fumes of lithium, cobalt-manganese, hydrofluoric acid, hydrogen and oxides of carbon, aluminum, lithium, copper and cobalt.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Large lithium-ion battery fires should only be extinguished by properly equipped fire fighters with training specific to lithium ion battery fires. Approach from upwind. Access forbidden to unauthorized personnel. Appropriate self-contained breathing apparatus may be required. Avoid breathing (dust, vapor, mist, gas). Collect contaminated extinguishing water separately and must not enter the sewage system.
- Protection during firefighting : Wear NIOSH/MSHA/EN469-approved self-contained breathing apparatus (SCBA) and protective clothing when fighting chemical fires.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

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".
- Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray. Remove all sources of ignition

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Add neutralizer/absorbent, e.g. sand or vermiculite, to spill area. Sweep or shovel spilled material and absorbent and place in approved container. Dispose of any non-recyclable materials in accordance with local, state, provincial or federal regulations.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Precautions for safe handling	: Avoid shorting the battery. Do not immerse in water. Do not disassemble or deform the battery. Do not expose to, or dispose of the battery in fire. Avoid excessive physical shock or vibration. Keep out of the reach of children. Battery must be charged in an approved charger. Never use a modified or damaged charger. Use for specified product applications only. Store in a cool, dry and well-ventilated area. Never use a battery that has suffered abuse. Refer to data sheet for safe operating instructions.
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

Storage conditions	: Store cell in a dry location. To minimize any adverse effects on battery performance it is recommended that the cells be kept at room temperature (25°C +/- 5°C). Elevated temperatures can result in shortened cell life. Keep out of reach of children.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Graphite (7782-42-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	2 mg/m ³ (all forms except graphite fibers-respirable particulate matter)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	15 mg/m ³ (synthetic-total dust) 5 mg/m ³ (synthetic-respirable fraction) 15 mppcf (natural-respirable dust)
USA - IDLH - Occupational Exposure Limits	
IDLH	1250 mg/m ³ (Graphite (natural))
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	2.5 mg/m ³ (natural-respirable dust)
Copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.2 mg/m ³ (fume)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	0.1 mg/m ³ (fume) 1 mg/m ³ (dust and mist)
USA - IDLH - Occupational Exposure Limits	
IDLH	100 mg/m ³ (dust, fume and mist)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	1 mg/m ³ (dust and mist) 0.1 mg/m ³ (fume)
Aluminum (7429-90-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 mg/m ³ (respirable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA - OSHA - Occupational Exposure Limits	

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Aluminum (7429-90-5)	
OSHA PEL TWA	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

8.2. Appropriate engineering controls

Appropriate engineering controls	: Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fume and vapor.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Not necessary under normal conditions. In case of battery rupture or leakage, wear rubber apron and nitrile, neoprene, or natural rubber gloves when handling an open or leaking battery. Inspect gloves prior to use. Change disposable gloves within 30 minutes of obvious contamination by electrolyte. Remove dirty gloves by appropriate technique. Do not touch outer surface of glove.
Eye protection:
Not necessary under normal conditions. In case of battery rupture or leakage, wear long sleeved clothing.
Skin and body protection:
Not necessary under normal conditions. In case of battery rupture or leakage, wear
Respiratory protection:
Not necessary under normal conditions. In case of battery venting or rupture, inside an enclosed space, use NIOSH approved or equivalent self-contained breathing apparatus.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Black and grey
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
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
Density	: 4.197 g/cm ³
Solubility	: No data available

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Partition coefficient n-octanol/water (Log Pow)	: Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7): > 0.564 (at 20 °C) 1,3-Dioxolan-2-one (96-49-1): 0.11 (at 20 °C (at pH >5.33-<5.79) Dimethyl carbonate (616-38-6): 0.354 (at 20 °C (at pH >6.5-<7.5)
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
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 dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

Avoid mechanical or electrical abuse, including external short circuit of battery, deformation by crush, direct sunlight, high humidity, temperatures exceeding 60°C, puncture, sources of ignition, or installation with incorrect polarity.

10.5. Incompatible materials

Strong bases, combustible organic materials, reducing agents, strong oxidizers, and sea water or other electrically conductive liquids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

A compromised battery may emit irritating or toxic fumes and gases, including metallic oxide, hydrogen fluoride, carbon monoxide, and carbon monoxide.

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

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 3.2 mg/l/4h

Graphite (7782-42-5)

LC50 Inhalation - Rat	> 2000 mg/m ³ (Exposure time: 4 h)
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Sodium carboxymethyl cellulose (9004-32-4)	
LD50 oral rat	27000 mg/kg
LC50 Inhalation - Rat	> 5800 mg/m ³ (Exposure time: 4 h)
1,3-Dioxolan-2-one (96-49-1)	
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 26420 mg/kg
LC50 Inhalation - Rat	> 730 mg/m ³ (Exposure time: 8 h)
Dimethyl carbonate (616-38-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.36 mg/l air
Phosphate(1-), hexafluoro-, lithium (21324-40-3)	
LD50 oral rat	50 – 300 mg/kg
Copper (7440-50-8)	
LC50 Inhalation - Rat	> 5.11 mg/l/4h
Aluminum (7429-90-5)	
LC50 Inhalation - Rat	> 0.888 mg/l/4h
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
Styrene-butadiene copolymer (9003-55-8)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Phosphate(1-), hexafluoro-, lithium (21324-40-3)	
NOAEL (animal/male, F0/P)	500 mg/kg
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Graphite (7782-42-5)	
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.000279 mg/l air
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
1,3-Dioxolan-2-one (96-49-1)	
NOAEL (oral,rat,90 days)	150 mg/kg
Phosphate(1-), hexafluoro-, lithium (21324-40-3)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/effects	: No information available.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Graphite (7782-42-5)	
LC50 - Fish	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae	19 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	47 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

1,3-Dioxolan-2-one (96-49-1)	
LC50 - Fish	> 100 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: ECHA)

Dimethyl carbonate (616-38-6)	
LC50 - Fish	≥ 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Phosphate(1-), hexafluoro-, lithium (21324-40-3)	
EC50 96h - Algae	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC chronic fish	4 mg/l Test organisms (species): Duration: '21 d'

Copper (7440-50-8)	
EC50 - Crustacea	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 96h - Algae	0.031 – 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)	
Partition coefficient n-octanol/water (Log Pow)	> 0.564 (at 20 °C)

1,3-Dioxolan-2-one (96-49-1)	
Partition coefficient n-octanol/water (Log Pow)	0.11 (at 20 °C (at pH >5.33-<5.79)

Dimethyl carbonate (616-38-6)	
Partition coefficient n-octanol/water (Log Pow)	0.354 (at 20 °C (at pH >6.5-<7.5)

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Products released into the natural environment will slowly degrade and may release harmful or toxic substances. Cells are not intended to be released into water or on land but should be disposed or recycled according to local regulations.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Cell recycling is encouraged. The battery packs internal cell's contents should not be released into the environment, do not dump into any sewers, on the ground or into any body of water. Do not dispose of battery packs in fire. Used battery packs should be stored in their original packaging. Ensure packs are stored in a manner to prevent short circuit of the cells. Battery pack should be fully discharged before recycling. Do not break battery pack open before disposal. Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN3480
UN-No. (TDG) : UN3480
UN-No. (IMDG) : 3480
UN-No. (IATA) : 3480

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Lithium ion batteries
Proper Shipping Name (TDG) : LITHIUM ION BATTERIES
Proper Shipping Name (IMDG) : LITHIUM ION BATTERIES
Proper Shipping Name (IATA) : Lithium ion batteries

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : 9
Hazard labels (DOT) : 9



TDG
Transport hazard class(es) (TDG) : 9
Hazard labels (TDG) : 9



IMDG
Transport hazard class(es) (IMDG) : 9

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Hazard labels (IMDG) : 9



IATA

Transport hazard class(es) (IATA) : 9A

Hazard labels (IATA) : 9A



14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN3480

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

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

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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.

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, 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
Phosphoric acid, iron(2+) lithium salt (1:1:1)	15365-14-7	Present	Active	PMN;S;5E
Graphite	7782-42-5	Present	Active	
1,1-Difluoroethylene polymer	24937-79-9	Present	Active	XU
Sodium carboxymethyl cellulose	9004-32-4	Present	Active	XU
Styrene-butadiene copolymer	9003-55-8	Present	Active	XU
1,3-Dioxolan-2-one	96-49-1	Present	Active	
Dimethyl carbonate	616-38-6	Present	Active	
Phosphate(1-), hexafluoro-, lithium	21324-40-3	Present	Active	PMN
Copper	7440-50-8	Present	Active	
Aluminum	7429-90-5	Present	Active	

Copper (7440-50-8)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm
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Aluminum (7429-90-5)

Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

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Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Listed on the Canadian DSL (Domestic Substances List)

Graphite (7782-42-5)

Listed on the Canadian DSL (Domestic Substances List)

1,1-Difluoroethylene polymer (24937-79-9)

Listed on the Canadian DSL (Domestic Substances List)

Sodium carboxymethyl cellulose (9004-32-4)

Listed on the Canadian DSL (Domestic Substances List)

Styrene-butadiene copolymer (9003-55-8)

Listed on the Canadian DSL (Domestic Substances List)

1,3-Dioxolan-2-one (96-49-1)

Listed on the Canadian DSL (Domestic Substances List)

Dimethyl carbonate (616-38-6)

Listed on the Canadian DSL (Domestic Substances List)

Phosphate(1-), hexafluoro-, lithium (21324-40-3)

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

Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

Aluminum (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Listed on ELINCS (European List of Notified Chemical Substances)

Graphite (7782-42-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,3-Dioxolan-2-one (96-49-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Dimethyl carbonate (616-38-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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Phosphate(1-), hexafluoro-, lithium (21324-40-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Aluminum (7429-90-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

Graphite (7782-42-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

1,1-Difluoroethylene polymer (24937-79-9)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

Sodium carboxymethyl cellulose (9004-32-4)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

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Styrene-butadiene copolymer (9003-55-8)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

1,3-Dioxolan-2-one (96-49-1)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

Dimethyl carbonate (616-38-6)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
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Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

Phosphate(1-), hexafluoro-, lithium (21324-40-3)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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Copper (7440-50-8)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

Aluminum (7429-90-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on TECI (Thailand Existing Chemicals Inventory)

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)

Issue date	: 9/22/2023
Revision date	: 9/22/2023
Data sources	: ECHA. Loli.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	: No information available.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

