

SAFETY DATA SHEET

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NGHS / English



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1. IDENTIFICATION

Product identifier

Product Name Rechargeable Li-ion Battery L23N4PF1 by ATL

Other means of identification

Product Code(s) 1774331

Recommended use of the chemical and restrictions on use

Recommended Use Lithium Ion Battery

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification Lenovo LNB laptops

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2. HAZARDS IDENTIFICATION

Classification

| | |
|--|---------------------------|
| Skin corrosion/irritation | Category 1 Sub-category B |
| Serious eye damage/eye irritation | Category 1 |
| Carcinogenicity | Category 1B |
| Specific target organ toxicity (single exposure) | Category 3 |



| | |
|--|------------|
| Specific target organ toxicity (repeated exposure) | Category 1 |
|--|------------|

This is a battery. In case of rupture: the above hazards exist.

Appearance Black

Physical state Solid

Odor Odorless

GHS Label elements, including precautionary statements

Danger

Hazard statements

Causes severe skin burns and eye damage
May cause cancer
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor
Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Immediately call a POISON CENTER or doctor

Ingestion

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information



May be harmful if swallowed. May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects.

Unknown acute toxicity 18.5 % of the mixture consists of ingredient(s) of unknown toxicity
16 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
18.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

| Chemical name | CAS No | Weight-% | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|--|------------|----------|--|---|
| Lithium Cobalt Oxide (CoLiO ₂) | 12190-79-3 | 27.5 | - | - |
| Copper | 7440-50-8 | 20 | - | - |
| Aluminum foil | 7429-90-5 | 20 | - | - |
| Graphite | 7782-42-5 | 16 | - | - |
| Propylene carbonate | 108-32-7 | 7.5 | - | - |
| Phosphate(1-), hexafluoro-, lithium | 21324-40-3 | 7.5 | - | - |
| Ethylene carbonate | 96-49-1 | 7.5 | - | - |
| 1,3-Propane sultone | 1120-71-4 | 0.5 | - | - |

4. FIRST AID MEASURES

Description of first aid measures

General advice

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. First aid is upon rupture of sealed battery. In case of rupture:

Inhalation

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical



advice/attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

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 Pick up and transfer to properly labeled containers.



7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

In case of rupture: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|---|--|---|
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | TWA: 0.02 mg/m ³ | - | |
| Copper 7440-50-8 | TWA: 0.2 mg/m ³ fume | TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist | IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume |
| Aluminum foil 7429-90-5 | TWA: 1 mg/m ³ respirable particulate matter | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust |
| Graphite 7782-42-5 | TWA: 2 mg/m ³ respirable particulate matter all forms except graphite fibers | TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf respirable dust natural (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural | IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ respirable dust |
| Phosphate(1-), hexafluoro-, lithium 21324-40-3 | TWA: 2.5 mg/m ³ F | TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³ | IDLH: 250 mg/m ³ F |

| Chemical name | Alberta | British Columbia | Ontario TWAEV | Quebec |
|---|--|--|--|--|
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | TWA: 0.02 mg/m ³ |
| Copper 7440-50-8 | TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ | TWA: 1 mg/m ³ TWA: 0.2 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ |
| Aluminum foil 7429-90-5 | TWA: 10 mg/m ³ | TWA: 1.0 mg/m ³ | TWA: 1 mg/m ³ | TWA: 10 mg/m ³ |
| Graphite 7782-42-5 | TWA: 2 mg/m ³ |
| Phosphate(1-), hexafluoro-, lithium 21324-40-3 | TWA: 2.5 mg/m ³ |
| 1,3-Propane sultone 1120-71-4 | | TWA: | TWA: | TWA: |

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992). See section 15 for national exposure control parameters.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Face protection shield.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance Black
Odor Odorless
Color No information available
Odor Threshold No information available

| Property | Values | Remarks Method |
|-------------------------------|-------------------|----------------|
| pH | No data available | None known |
| Melting / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash Point | No data available | None known |



| | | |
|---|--------------------|------------|
| Evaporation Rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | |
| Upper flammability limit | No data available | |
| Lower flammability limit | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water Solubility | Insoluble in water | |
| Solubility(ies) | No data available | None known |
| Partition coefficient: n-octanol/water ¹ | | |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |

Other Information

| | |
|----------------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening Point | No information available |
| Molecular Weight | No information available |
| VOC Content (%) | No information available |
| Liquid Density | No information available |
| Bulk Density | No information available |
| Particle Size | No information available |
| Particle Size Distribution | No information available |

10. STABILITY AND REACTIVITY

| | |
|------------------------------------|---|
| Reactivity | No information available. |
| Chemical stability | Stable under normal conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Exposure to air or moisture over prolonged periods. |
| Incompatible materials | Acids. Bases. Oxidizing agent. |
| Hazardous Decomposition Products | Carbon oxides. |

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

| | |
|---------------------|--|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture: |
| Inhalation | Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause drowsiness or dizziness. |

| | |
|---------------------|---|
| Eye contact | Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes. |
| Skin contact | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May be harmful in contact with skin. |
| Ingestion | Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|-----------------|--|
| Symptoms | Redness. Burning. May cause blindness. Coughing and/ or wheezing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|-----------------|--|

Numerical measures of toxicity

Acute toxicity

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

| | |
|------------------------|----------------|
| ATEmix (oral) | 4,384.60 mg/kg |
| ATEmix (dermal) | 3,260.00 mg/kg |

| | |
|-------------------------------|--|
| Unknown acute toxicity | 18.5 % of the mixture consists of ingredient(s) of unknown toxicity |
| | 16 % of the mixture consists of ingredient(s) of unknown acute oral toxicity |
| | 18.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity |
| | 18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) |
| | 18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) |
| | 18.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist) |

Product Information

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------------|-----------------------|--------------------------|--------------------------------------|
| Lithium Cobalt Oxide (CoLiO2) | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rat) | > 5.05 mg/L (Rat) 4 h |
| Copper | - | - | > 5.11 mg/L (Rat) 4 h |
| Aluminum foil | - | - | > 0.888 mg/L (Rat) 4 h |
| Graphite | - | - | > 2000 mg/m ³ (Rat) 4 h |
| Propylene carbonate | = 29000 mg/kg (Rat) | > 3000 mg/kg (Rabbit) | - |
| Ethylene carbonate | = 10 g/kg (Rat) | > 26420 mg/kg (Rabbit) | > 730 mg/m ³ (Rat) 8 h |
| 1,3-Propane sultone | = 157 mg/kg (Rat) | - | - |

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

| | |
|--|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes burns. |
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | No information available. |



Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---|-------|----------|------------------------|------|
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | A3 | Group 2B | Reasonably Anticipated | X |
| 1,3-Propane sultone 1120-71-4 | A3 | Group 2A | Reasonably Anticipated | X |

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---------------------|--|---|----------------------------|---------------------------------------|
| Copper | 96h EC50: 0.031 - 0.054 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.0426 - 0.0535 mg/L (Pseudokirchneriella subcapitata) | 96h LC50: 0.0068 - 0.0156 mg/L (Pimephales promelas) 96h LC50: < 0.3 mg/L (Pimephales promelas) 96h LC50: = 0.052 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.112 mg/L (Poecilia reticulata) 96h LC50: = 0.2 mg/L (Pimephales promelas) 96h LC50: = 0.3 mg/L (Cyprinus carpio) 96h LC50: = 0.8 mg/L (Cyprinus carpio) 96h LC50: = 1.25 mg/L (Lepomis macrochirus) | No data available | 48h EC50: = 0.03 mg/L (Daphnia magna) |
| Graphite | No data available | 96h LC50: > 100 mg/L (Danio rerio) | No data available | No data available |
| Propylene carbonate | 72h EC50: > 500 mg/L | 96h LC50: > 1000 mg/L | EC50 > 10000 mg/L 17 h | 48h EC50: > 500 mg/L |



| | | | | |
|--------------------|--------------------------|---|-------------------|-------------------|
| | (Desmodemus subspicatus) | (Cyprinus carpio) | | (Daphnia magna) |
| Ethylene carbonate | No data available | 96h LC50: > 100 mg/L (Oncorhynchus mykiss) | No data available | No data available |

Persistence and Degradability No information available.

Bioaccumulation

Component Information

| Chemical name | Partition coefficient |
|---------------------|-----------------------|
| Propylene carbonate | 0.48 |
| Ethylene carbonate | 0.11 |

Mobility No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

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.

California Waste Codes 141

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical name | California Hazardous Waste |
|---|----------------------------|
| Lithium Cobalt Oxide (CoLiO2) 12190-79-3 | Toxic |
| Aluminum foil 7429-90-5 | Ignitable powder |

14. TRANSPORT INFORMATION

Note: The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule)
Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A45 of IATA-DGR" or "special provision 188 of IMO-IMDG Code"



DOT NOT REGULATED
Proper Shipping Name NON-REGULATED
Hazard Class N/A
Emergency Response Guide Number 147

TDG

MEX Not applicable

ICAO Not applicable

IATA

UN-No. UN3480
Proper Shipping Name LITHIUM ION BATTERIES
Hazard Class 9
ERG Code 12FZ
Description UN3480, LITHIUM ION BATTERIES, 9

IMDG/IMO

Not applicable
Proper Shipping Name NON-REGULATED PER SP 188
Hazard Class N/A
EmS-No. F-A, S-I
Marine Pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

RID Not applicable

ADR Not applicable

ADN Not applicable

15. REGULATORY INFORMATION

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention 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.
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



KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|--|------------|----------|-------------------------------|
| Lithium Cobalt Oxide (CoLiO2) - 12190-79-3 | 12190-79-3 | 27.5 | 0.1 |
| Copper - 7440-50-8 | 7440-50-8 | 20 | 1.0 |
| Aluminum foil - 7429-90-5 | 7429-90-5 | 20 | 1.0 |
| 1,3-Propane sultone - 1120-71-4 | 1120-71-4 | 0.5 | 0.1 |

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Copper 7440-50-8 | | X | X | |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|----------------------------------|--------------------------|------------------------------------|--|
| Copper 7440-50-8 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Aluminum foil 7429-90-5 | | | |
| 1,3-Propane sultone 1120-71-4 | 10 lb | | RQ 10 lb final RQ RQ 4.54 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

| Chemical name | California Proposition 65 |
|---------------------------------|---------------------------|
| 1,3-Propane sultone - 1120-71-4 | carcinogen, 1/1/1988 |

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

| Chemical name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|----------------------|------------|---------------|--------------|--------------|----------|
| Lithium Cobalt Oxide | X | | X | X | X |



| | | | | | |
|--|---|---|---|---|---|
| (CoLiO2) 12190-79-3 | | | | | |
| Copper 7440-50-8 | X | X | X | X | X |
| Aluminum foil 7429-90-5 | X | X | X | X | |
| Graphite 7782-42-5 | X | X | X | | |
| Phosphate(1-), hexafluoro-, lithium 21324-40-3 | X | | | | |
| Ethylene carbonate 96-49-1 | | X | X | | |
| 1,3-Propane sultone 1120-71-4 | X | X | X | X | X |

16. OTHER INFORMATION

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|---|
| NFPA | Health hazards 1 | Flammability 0 | Instability 0 | Physical and Chemical Properties - |
| HMIS | Health hazards 0 | Flammability 0 | Physical hazards 0 | Personal Protection X |

Prepared By Product Stewardship
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Latham, NY 12110
1-800-572-6501

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Revision Note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

