

## SAFETY DATA SHEET

**FCL-X Pro FCL-X Pro Max FCL-X FD****SECTION 1: IDENTIFICATION****1.1. Product identifier**

*Trade name:* FCL-X Pro FCL-X Pro Max FCL-X FD

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

*Relevant identified uses of the substance or mixture:* Extinguishing agent designed to extinguish lithium-ion battery fires and/or thermal runaways.

*Uses advised against :* None known.

**1.3. Details of the supplier of the safety data sheet**

*Company and address:* **FCL**  
345 Industrial Park Boulevard, Nahunta, GA  
31553  
United States  
912.462.2084  
<https://fullcirclelithium.com>

*Contact person:* FCL-X On Call - 912.580.9128

*E-mail:* [info@fcl-x.com](mailto:info@fcl-x.com)

*SDS date:* 4/23/2026

*SDS Version:* 1.0

**1.4. Emergency telephone number**

912.580.9128

**SECTION 2: HAZARD(S) IDENTIFICATION**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**2.1. Classification of the substance or mixture**

Causes eye irritation, Causes eye irritation  
Causes mild skin irritation, Causes mild skin irritation  
Skin Irrit. 2; H315, Causes skin irritation.  
Eye Irrit. 2; H319, Causes serious eye irritation.  
STOT SE 3; H335, May cause respiratory irritation.  
Repr. 1B; H360, May damage fertility or the unborn child.  
STOT RE 1; H372, Causes damage to organs through prolonged or repeated exposure.  
May be harmful if swallowed.

**2.2. Label elements**

*Hazard pictogram(s):*



*Signal word:*

Danger

*Hazard statement(s):*

Causes skin irritation. (H315)  
 Causes serious eye irritation. (H319)  
 May cause respiratory irritation. (H335)  
 May damage fertility or the unborn child. (H360)  
 Causes damage to organs through prolonged or repeated exposure. (H372)

*Precautionary statement(s):*

*General:*

If medical advice is needed, have product container or label at hand. (P101)  
 Keep out of reach of children. (P102)

*Prevention:*

Obtain special instructions before use. (P201)  
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)  
 Do not allow contact with air. (P222)  
 Do not breathe dust. (P260)  
 Wash hands thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Use only outdoors or in a well-ventilated area. (P271)  
 Wear protective gloves/protective clothing/eye protection/face protection. (P280)

*Response:*

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
 IF exposed or concerned: Get medical advice/attention. (P308+P313)  
 Call a POISON CENTER/doctor if you feel unwell. (P312)  
 Get medical advice/attention if you feel unwell. (P314)  
 If eye irritation persists: Get medical advice/attention. (P337+P313)  
 Leaking gas fire: Do not extinguish, unless leak can be stopped safely. (P377)  
 In case of leakage, eliminate all ignition sources. (P381)

*Storage:*

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

*Disposal:*

Dispose of contents/container in accordance with local regulation. (P501)

*Hazards not otherwise classified (HNOC):*

Causes eye irritation  
 Causes mild skin irritation

May be harmful if swallowed  
May be harmful if inhaled

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Potassium acetate	CAS No.: 127-08-2	<1-20%	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	
Erythritol	CAS No.: 149-32-6	<1-10%		
Lithium carbonate	CAS No.: 554-13-2	<1-5%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Repr. 1B, H360 STOT RE 1, H372	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

Not applicable

## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures

*General information:*

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

*Inhalation:*

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

*Skin contact:*

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and

	soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
<i>Eye contact:</i>	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
<i>Ingestion:</i>	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
<i>Burns:</i>	Not applicable.

#### 4.2. Most important symptoms and effects, both acute and delayed

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.  
High amounts of dust can cause coughing and general irritation of the respiratory airways.

#### 4.3. Indication of any immediate medical attention and special treatment needed

If eye irritation persists: Get medical advice/attention.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.  
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.  
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:  
Carbon oxides (CO / CO<sub>2</sub>)  
Some metal oxides

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain

further advice.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Avoid direct contact with spilled substances.  
Ensure adequate ventilation, especially in confined areas.  
Contaminated areas may be slippery.

### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

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

Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.  
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid direct contact with the product.  
Smoking, drinking and consumption of food is not allowed in the work area.  
See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Powder trickling out onto the floor or onto other containers must be prevented.

*Recommended storage material:* Always store in containers of the same material as the original container.

*Storage conditions:* Dry, cool and well ventilated.

*Incompatible materials:* Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1).

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

<i>General recommendations:</i>	Smoking, drinking and consumption of food is not allowed in the work area.
<i>Exposure scenarios:</i>	There are no exposure scenarios implemented for this product.
<i>Exposure limits:</i>	Occupational exposure limits have not been defined for the substances in this product.
<i>Appropriate technical measures:</i>	Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment.
<i>Hygiene measures:</i>	Take off contaminated clothing and wash it before reuse.
<i>Measures to avoid environmental exposure:</i>	Keep damming materials near the workplace. If possible, collect spillage during work.

### Individual protection measures, such as personal protective equipment


*Generally:* Use only protective equipment with a recognized certification mark, e.g. the UL mark.

#### *Respiratory Equipment:*

Type	Class	Colour	Standards
NA	NA	NA	EN 149


#### *Skin protection:*

Recommended	Type/Category	Standards
Use proper protective clothing	NA	NA




#### *Hand protection:*

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber	NA	NA	



#### *Eye protection:*

Type	Standards
Chemical safety goggles are recommended if contact is possible.	NA



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<i>Physical state:</i>	Powder
<i>Color:</i>	Green hue
<i>Odor:</i>	None
<i>Odor threshold (ppm):</i>	No data available.
<i>pH:</i>	Not applicable
<i>Density (g/cm<sup>3</sup>):</i>	2.1
<i>Kinematic viscosity:</i>	Does not apply to solids.
<i>Particle characteristics:</i>	No data available

### Phase changes

<i>Melting point/freezing point (°F):</i>	1144.4
<i>Melting point/freezing point (°C):</i>	618
<i>Softening point/range (°F):</i>	Does not apply to solids.
<i>Boiling point (°F):</i>	2390
<i>Boiling point (°C):</i>	1310
<i>Vapor pressure:</i>	Not applicable
<i>Relative vapor density:</i>	Not applicable
<i>Decomposition temperature (°F):</i>	Not applicable

### Data on fire and explosion hazards

<i>Flash point (°F):</i>	Not applicable
<i>Flammability (°F):</i>	The material is not combustible.
<i>Auto-ignition temperature (°F):</i>	Not applicable
<i>Explosion limits (% v/v):</i>	Not applicable

### Solubility

<i>Solubility in water:</i>	Soluble in water
<i>n-octanol/water coefficient (LogKow):</i>	No data available.
<i>Solubility in fat (g/L):</i>	No data available.

### 9.2. Other information

<i>Sensitivity to shock:</i>	No
<i>Evaporation rate (n-butylacetate = 100):</i>	Not applicable
<i>Other physical and chemical parameters:</i>	No data available.
<i>Oxidizing properties:</i>	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 10.6. Hazardous decomposition products

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory sensitisation

Based on available data, the classification criteria are not met.

#### Skin sensitisation

Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Carcinogenicity

Based on available data, the classification criteria are not met.

#### Reproductive toxicity

May damage fertility or the unborn child.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

### Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

### Other information

None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Product/substance	FCL-X Pro FCL-X Pro Max
Species:	Ceriodaphnia dubia
Compartment:	Freshwater
Duration:	48 hours
Test:	LC50
Result:	17.68 g/L

Product/substance	FCL-X Pro FCL-X Pro Max
Species:	Pimephales promelas
Compartment:	Freshwater
Duration:	96 hours
Result:	8.15 g/L

Based on available data, the classification criteria are not met.

### 12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

### 12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### 12.6. Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of all waste product and containers in accordance with federal, state and local regulations.

### RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

None of the components are listed.

### Specific labelling

### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

### Additional information

Not dangerous goods according to DOT, IATA and IMDG.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to IMO instruments

No data available.

## SECTION 15: REGULATORY INFORMATION

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

### 15.2. U.S. Federal regulations

*TSCA (the non-confidential portion):* Potassium acetate is listed  
Erythritol is listed  
Lithium carbonate is listed

*Clean Air Act:* None of the components are listed

*EPCRA Section 302:* None of the components are listed

*EPCRA Section 304:* None of the components are listed

*EPCRA section 313:* Lithium carbonate is listed

*CERCLA:* None of the components are listed

*Hazardous chemical inventory reporting:*

### 15.3. State regulations

*California / Prop. 65:* Lithium carbonate is known to cause: Developmental Toxicity  
—

*Massachusetts / Right To Know Act:* Lithium carbonate is listed

*New Jersey / Right To Know Act:* Lithium carbonate / Substance number: 1124  
Lithium carbonate is on the Special Health Hazard Substance List  
—

*New York / Right To Know Act:* Lithium carbonate is listed

Lithium carbonate is regulated with a Threshold Reporting Quantity (TRQ) of: 0 pounds

—

*Pennsylvania / Right To Know Act:* None of the components are listed

*NFPA:* Health hazard: 2  
Fire hazard: 0  
Instability hazard: 0

#### **15.4. Restrictions for application**

No special.

#### **15.5. Demands for specific education**

No specific requirements.

#### **15.6. Additional information**

Not applicable.

#### **15.7. Chemical safety assessment**

No

#### **15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## **SECTION 16: OTHER INFORMATION**

### **Full text of H-phrases as mentioned in section 3**

H302, Harmful if swallowed.  
H315, Causes skin irritation.  
H318, Causes serious eye damage.  
H319, Causes serious eye irritation.  
H335, May cause respiratory irritation.  
H360, May damage fertility or the unborn child.  
H372, Causes damage to organs through prolonged or repeated exposure.

### **The full text of identified uses as mentioned in section 1**

None known.

### **Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists  
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogKow = logarithm of the n-octanol/water coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### **Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

### **The safety data sheet is validated by**

A4

### **Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en