



SAFETY DATA SHEET

FCL-X Pro / FCL-X Pro Max (Solid Powder)

Standard: Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

Document Date: 09/16/2026 | **Version:** 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Trade Name: FCL-X Pro / FCL-X Pro Max

Product Type: Solid Powder

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: 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: FCL

Address: 345 Industrial Park Boulevard, Nahunta, GA 31553, United States

Telephone: 912.462.2084

Website: <https://fcl-x.com/>

Contact Person / Phone: FCL-X On Call (912.580.9128)

1.4. Emergency Telephone Number

Emergency Phone: 912.580.9128

SECTION 2: HAZARD(S) IDENTIFICATION

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

2.1. Classification of the Substance or Mixture

Serious Eye Damage / Eye Irritation (Category 2, H319); causes serious eye irritation

Carcinogenicity (Category 1B, H350); may cause cancer

Causes eye irritation

Causes mild skin irritation

2.2. Label Elements



Signal Word: DANGER

Hazard Statement(s):

Causes serious eye irritation. (H319)

May cause cancer. (H350)

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)

Wash hands thoroughly after handling. (P264)

Wear eye protection / face protection / protective gloves. (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)

If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage:

Store in a well-ventilated place. (P403)

Disposal:

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

2.3. Other Hazards

Hazards Not Otherwise Classified (HNOC):

Causes eye irritation

Causes mild skin irritation

May be harmful if swallowed

May be harmful if inhaled

Additional Labelling: Restricted to professional users.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Chemical / Component Name	CAS Number	Weight % (w/w)	Classification (GHS / OSHA HCS)
Potassium acetate	127-08-2	<1 – 30%	Skin Irrit. 2 (H315), Eye Irrit. 2 (H319), STOT SE 3 (H335)
Erythritol	149-32-6	1 – 10%	N/A
Lithium carbonate	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)
Citric Acid	77-92-9	<0.1 – 1.5%	N/A

Note on Confidentiality: Where the concentration of an ingredient is expressed as a range, the exact percentage has been withheld as a trade secret.

SECTION 4: FIRST-AID MEASURES

4.1. Description of First Aid Measures

General Information: If breathing is irregular, or in cases of drowsiness, loss of consciousness, or cramps: Call 911 immediately and provide first aid. Contact a physician if symptoms persist. Never give fluids to an unconscious person.



Inhalation: If breathing difficulty or irritation of respiratory tract: Bring the exposed person to fresh air and stay with them.

Skin Contact: Remove contaminated clothing and footwear immediately. Wash exposed skin thoroughly with soap and water. Do NOT use solvents or thinners.

Eye Contact: Flush eyes immediately with copious amounts of water or isotonic saline (20–30 °C) for at least 5 minutes. Remove contact lenses. Continue flushing during transport to medical care.

Ingestion: 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.

Burns: 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 exposed or concerned: Get immediate 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

This material is not combustible or flammable.

5.2. Special Hazards Arising from the Substance or Mixture

This material is not combustible or flammable.

Decomposition products produced under high temperatures/fire include: Carbon oxides (CO / CO₂).

5.3. Advice for Firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

Upon direct exposure, contact the Poison Help Line at 1-800-222-1222 (24/7) to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid direct contact with spilled substances. Spilled material may create slippery surfaces. Wear appropriate PPE (Section 8).

6.2. Environmental Precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of spills or leaks to surroundings, contact local environmental authorities.

6.3. Methods and Material for Containment and Cleaning Up

Collect spills carefully. Moisten the collection material with water to prevent dust formation and propagation.

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.

Avoid contact during pregnancy and while nursing.

Smoking, drinking, and consumption of food is not allowed in the work area.

See Section 8 for information on personal protection.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool, well-ventilated location, locked up. A sign warning of toxic materials shall be affixed to the room and cupboard containing the product(s). Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Packaging Material: Always store in containers of the same material as the original container.

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

General Recommendations: Smoking, drinking, and consumption of food is not allowed in the work area.

Exposure Scenarios: There are no exposure scenarios implemented for this product.

Exposure Limits: Occupational exposure limits have not been defined for the substances in this product.

Appropriate Technical Measures: Do not recirculate outlet air containing the substances. Apply standard precautions during use. Avoid inhalation of gas or dust. Keep concentrations at a minimum. Provide efficient mechanical ventilation; if not possible, use suitable respiratory equipment.

Hygiene Measures: Wash all exposed body areas thoroughly between uses and at the end of the workday. Pay special attention to hands, forearms, and face.

Measures to Avoid Environmental Exposure: Keep damming materials near the workplace. Collect spillage during work where possible.

Individual Protection Measures (Personal Protective Equipment)

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

Respiratory Equipment: Type: EN 149

Skin Protection: No specific requirements.

Hand Protection:

Material: Chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber



Eye Protection: Chemical safety goggles are recommended if contact is possible.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: Solid Powder

Color: Green hue

Odor: None

Odor Threshold: No data available

pH: 9-11 (when in solution)

Density (g/cm³): 2.1

Kinematic Viscosity: Does not apply to solids

Particle Characteristics: No data available

Phase Changes & Thermal Properties:

Melting Point / Freezing Point: 1144.4 °F (618 °C)

Boiling Point: 2390 °F (1310 °C)

Softening Point / Range: Does not apply to solids

Decomposition Temperature: Not applicable

Flash Point: Not applicable

Flammability: The material is not combustible

Auto-Ignition Temperature: Not applicable

Explosion Limits (% v/v): Not applicable

Vapor Pressure: Not applicable

Relative Vapor Density: Not applicable

Solubility & Coefficients:

Solubility in Water: Soluble in water

n-Octanol/Water Coefficient (LogKow): No data available

Solubility in Fat (g/L): No data available

9.2. Other Information

Sensitivity to Shock: No

Oxidizing Properties: Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Non-reactive under recommended storage conditions.

10.2. Chemical Stability: Stable under recommended storage conditions.

10.3. Possibility of Hazardous Reactions: None known under foreseeable emergencies.

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

Serious Eye Damage / Irritation: Causes serious eye irritation.

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

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

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: May cause cancer.

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

STOT – Single Exposure: Based on available data, the classification criteria are not met.

STOT – Repeated Exposure: Based on available data, the classification criteria are not met.

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

Long-Term Effects

Carcinogenic Effects: This product contains substances considered or proven to be carcinogenic. Carcinogenic effects may be triggered following exposure through inhalation, skin contact, or ingestion.

Irritation Effects: This product contains substances that may cause irritation upon exposure to skin, eyes, or lungs. Exposure may increase absorption potential of other hazardous substances at the contact area.

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

Species: Pimephales promelas | *Compartment:* Freshwater | *Duration:* 96 hours | *Result:* 8.15 g/L

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

SECTION 14: TRANSPORT INFORMATION

Mode	14.1 UN/ID	14.2 UN Proper Shipping Name	14.3 Hazard Class(es)	14.4 Packing Group (PG)	14.5 Environmental Hazards (Env)	Other Information
DOT	—	—	—	—	—	—
IMDG	—	—	—	—	—	—

Mode	14.1 UN/ID	14.2 UN Proper Shipping Name	14.3 Hazard Class(es)	14.4 Packing Group (PG)	14.5 Environmental Hazards (Env)	Other Information
IATA	—	—	—	—	—	—

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 (Non-confidential portion): None of the components are 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: None of the components are listed

CERCLA: None of the components are listed

Hazardous Chemical Inventory Reporting: This product contains substances that may cause endocrine disruption in humans.

15.3. State Regulations

California Prop. 65: Contains lithium carbonate

Massachusetts Right To Know Act: None of the components are listed

New Jersey Right To Know Act: Contains lithium carbonate

New York Right To Know Act: None of the components are listed

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

15.4 NFPA Rating

Health: 2 | **Fire Hazard:** 0 | **Instability Hazard :** 0

15.5. Restrictions for Application

Restricted to professional users.



Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

15.6. Demands for Specific Education

No specific requirements.

15.8. Chemical Safety Assessment

No

15.9. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION

Full Text of H-Phrases (from Section 3)

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H350: May cause cancer.

H360: May damage fertility or the unborn child.

H372: Causes damage to organs through prolonged or repeated exposure.

Abbreviations and Acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

DOT = Department of Transportation

EPCRA = Emergency Planning and Community Right-To-Know Act

ACGIH: American Conference of Governmental Industrial Hygienists

DOT: Department of Transportation

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

NFPA: National Fire Protection Association



NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

STOT: Specific Target Organ Toxicity

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative