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Updates:

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Name of Chemical: FCL-X PRO & FCL PRO MAX

Location: 345 Industrial Park Blvd.

Nahunta, GA 31553

Section 1: Identification

1.1 Product Identifier

Product Form

FCL-X Pro and FCL-X Pro MAX is a powder-based proprietary mixture that has a fine texture, a subtle hue of green, and lacks any discernible odor.

Product Name

FCL-X Pro and FCL Pro MAX

1.2 Intended Use of the Product

Use of the Substance/Mixture

FCL-X is an extinguishing agent designed to extinguish lithium-ion battery fires and/or thermal runaways. It is intended to be applied from a batch-mixed tank to meet a specific concentrated range of TDS for optimal performance.

1.3 Name, Address, and Telephone of the Responsible Party

Full Circle Lithium
345 Industrial Park Blvd
Nahunta, GA 31553

Emergency Telephone Number

Office: 912.462.2084
FCL-X On Call- 912.580.9128

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 GHS Classification (EC Regulation 1272/2008 and US OSHA Regulations)

Acute Toxicity: Category 4

Eye Irritant: Category 2

2.2 Label Elements

2.2.1 Hazard Pictogram



2.2.2 Signal Word

Warning

Hazard Statement

Harmful if swallowed

Causes serious eye irritation

Precautionary Statement(s):

Prevention:

Wash face, hands, and any exposed skin thoroughly after handling

Do not eat, drink, or smoke when using this product

Wear eye/face protection

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. If contact lenses are present and easy to remove, continue rinsing.

P305+P351+P338

If eye irritation persists, get medical advice/attention.

P337+P313

Ingestion

Safety Data Sheet

IF SWALLOWED: Consult a physician if you feel unwell.

P301+P312

Rinse mouth.

P330

Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

None Identified

Warning Reproductive Harm – <https://www.p65warnings.ca.gov/>.

Section 3: Composition/Information on Ingredients

3.1 Substance

Trade Secret: Proprietary fine powder Weight 98%

FD&C Blue 1 Lake (E133)

FD&C Yellow 5 Lake (102)

3.2 Mixture (Include percentages & GHS-US classification)

Proprietary fine powder with a hue of green

Section 4: First Aid Measures

4.1 Description of First Aid Measures

Eyes: Flush with water for at least 15 minutes. If irritation occurs and persists, contact a medical doctor.

Skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Inhalation: Remove fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms persists.

Ingestion: Drink 1 to 2 glasses of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

Most important symptoms and affects

None reasonably foreseeable

Notes to physician

Treat symptomatically

Section 5: Fire Fighting Measures

5.1 Extinguishing Media

No information available

Flash Point- Not applicable

Method- No information available

Autoignition Temperature- No information available

5.2 Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: None

General Hazard: No known physical hazard, no combustible

Properties Contributing to Flammability: None

Flashpoint: Not applicable

Flammable limits in the air: Upper: Not available Lower: Not available

Auto Ignition Temperature: Not applicable

Sensitivity to Static Charge: Not applicable

Sensitivity to Static Impact: Not applicable

5.3 Advice for Fire-fighters

Wear full protective clothing and self-contained breathing apparatus (SBCA) for firefighting.

NFPA

Health 2

Flammability 0

Instability 0

Physical Hazards N/A

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

Safety Data Sheet

Before cleanup measures begin, review the entire SDS with particular attention to Section 2, Hazards Identification; Section 8, Exposure Controls/Personal Protection.

6.2 Environmental Precautions

Do not wash into drains. Dispose of at a qualified waste disposal facility.

6.3 Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1 Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Use adequate ventilation. Wear safety glasses or goggles and rubber gloves. Wash thoroughly after handling.

7.2 Conditions for Safe Storage Including any Incompatibilities

Keep containers tightly closed in a dry, cool, and well ventilated place. Incompatible materials. Strong oxidizing agents.

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limitations established by the region specific regulatory bodies.

8.2 Exposure Controls

Personal Protective Equipment

Eyes and Face: Safety Glasses or goggles

Respiratory: Follow the OSHA respirator regulations found in 29 CFR 1910, 134, or European Standard EN-149. Use a NIOSH/MHSA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Protective Clothing: Gloves (nitrile, neoprene, PVC/rubber (permeation breakthrough not detected during 6-hour test))

Work Hygienic Practices: Quick drench eyewash and safety shower

Section 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Fine powder with a green hue
Odor:	Not Discernible
Odor Threshold:	None
pH:	Not Applicable
Melting Point:	618 C / 1144.4 F
Boiling Point:	1310 C / 2390 F
Flash Point:	Not Applicable
Evaporation Rate:	Not Applicable
Flammability:	Not Applicable
Flammable Limits:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Specific Gravity:	2.1 (H ₂ O=1)
Solubility in Water:	Soluble in water to a specific TDS
Partition Coefficient n-octanol/water:	Not Available
Auto-Ignition Temperature:	Not Applicable
Decomposition Temperature:	Not Applicable
Viscosity:	Not Applicable
Explosive Properties:	Not Explosive
Oxidizing Properties:	Not an Oxidizer

9.2 Other Information

Self-Reactive Properties:	Does not meet classification criteria
Pyrophoric Properties:	Does not meet classification criteria
Self-heating Properties:	Does not meet classification criteria
Water Reactive Properties:	Does not meet classification criteria
Corrosive to Metals:	Does not meet classification criteria

Section 10: Stability and Reactivity

10.1 Reactivity

None known, based on information available

10.2 Chemical Stability

Stable, under normal conditions

10.3 Possibility of Hazardous Reaction:

Hazardous Polymerization will not occur

10.4 Conditions to Avoid

Incompatible products. Avoid dust formation.

10.5 Incompatible Metals

Strong oxidizing agents

10.6 Hazardous Decomposition Products:

None known under normal processing

Section 11: Toxicological Information

Acute Toxicity Product Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Proprietary Fine Powder	LD50 = 525 mg/kg (Rat)	LD50 > 3000 mg/kg (Rabbit)	> 2.17 mg/L (Rat) 4 h

Safety Data Sheet

11.1 Information on Toxicological Effects

Toxicologically Synergetic

No information available

Irritation

Risk of serious damage to eyes. Irritating eyes, respiratory system and skin

Sensitization

No information available

Carcinogenicity

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

Component	CAS No.	IARC	NTP	ACGIH	OSHA	Mexico
Proprietary Powder	N/A	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Mutagenic Effects

No information available

Developmental Effects

No information available

Teratogenicity

No information available

STOT-Single Exposure

None known

STOT- Repeated Exposure

None known

Aspiration Hazard

No information available

Symptoms / Effects both acute and delayed

No information available

Endocrine Disruptor Information

No information available

Other adverse effects

The toxicological properties have not been fully investigated

Acute Effects from Overexposure:

This product doesn't contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Chronic Effects from Overexposure:

This product doesn't contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

12.1 Toxicity:

The toxicity of Full Circle Lithium product, FCL-X, was evaluated for two aquatic species common to freshwater toxicity test methods. These methods are used by the National Pollutant Discharge Elimination System (NPDES) regulatory program for monitoring discharges of industrial and municipal sources of wastewater in the United States.

One vertebrate species, *Pimephales promelas* (minnow), and one invertebrate species, *Ceriodaphnia dubia* (water flea), were exposed to FCL-X in separate tests using a static nonrenewal procedure. This report describes the results of toxicity tests conducted at EnviroScience Inc., 5070 Stow Rd., Stow, OH 44224, during the period of December 12-16, 2024, December 31, 2024-January 4, 2025 and January 8-12, 2025.

Acute endpoints for FCL-X		
	<i>Ceriodaphnia dubia</i>	<i>Pimephales promelas</i>
	48-hour LC ₅₀	96-hour LC ₅₀
FCL-X	17.68 g/L	8.15 g/L

* Includes all FCL Product Lines

12.2 Mobility in Soil

No data is available for this product

12.3 Other Adverse Effects

None

12.4 Persistence and Degradability

No data is available for this product

Section 13: Disposal Considerations

13.1 Waste Treatment Methods

Use a qualified industrial waste disposal facility. Dispose of waste according to local and Federal laws and regulations.

Section 14: Disposal Transportation

14.1 UN Number None

14.2 UN Proper Shipping Name (IMDG, ICAO, ADR, DOT) None

14.3 Transport Hazard Class(es) (IMDG, ICAO, ADR, DOT)

Based on available data, the classification criteria are not met

14.4 Packing Group (IMDG, ICAO, ADR, DOT) None

14.5 Environmental Hazards

Based on available data, the classification criteria are not met

14.6 Special Precautions for User None

14.7 Transport in Bulk according to Annex II of MARPOL 73/78 and IBC Code None

Section 15: Regulatory Information

Component	CAS No.	TSCA	TSCA Inventory notification Active-Inactive	TSCA- EPA Regulatory Flags
Proprietary Powder	NA	X	Active	-

Legend:

TSCA US EPA (TSCA)- Toxic Substances Control Act; (40 CFR Part 710)

X- Listed

Safety Data Sheet

15.1 International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL)

Component	CAS No.	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Proprietary Powder	NA	X	–	209-062-5	X	X	X	X	X	KE-22550

KECL- NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

15.2 US Federal Regulations

Component	CAS No.	Weight %	SARA 313 Threshold Values %
Proprietary Powder	NA	98%	NA

CWA (Clean Water Act) Not applicable

OSHA- Occupational Safety and Health Administration Not applicable

Clean Air Act Not applicable

CERCLA Not applicable

California Proposition 65 This product contains the following Proposition 65 chemicals

Component	CAS No.	California Prop 65	Prop 65 NSRL	Category
Proprietary Powder	NA	Developmental	-	Developmental

15.3 U.S. State Right to Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Proprietary Powder	X	X	-	-	-

15.4 U.S. Department of Transportation

Reportable Quantity (RQ): N

Safety Data Sheet

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

15.5 U.S. Department of Homeland Security
chemicals

This product does not contain any DHS

15.6 Other International Regulations

Mexico – Grade

No information available

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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