9L Lithium-Ion Battery Extinguisher - LI-ion Fire Solution

A 9L Lithium-Ion Battery Extinguisher containing agent F-500 EA is ideal for Class A and Lithium Ion battery fires. The extinguisher can be used to protect a variety of different locations and assets, from EV charging stations, wind farms, electric car showrooms, and all types of electric and hybrid vehicles.

Note: To be used for initial control and cooling of lithium fire until additional resources are available such as a Fire Blanket or Professional Fire Services.

SKU/Part #
EXTINGUISHER-L-FB9LF-500

Key Features:

- Agent: F-500 Multi Purpose EA
- Size: 9.0L
- Fire Rating: 3A
- Propellant: Dry Nitrogen
- Weight: 12.2kg
- Product Height: 638mm
- Cylinder Dimensions: 541mm x 180mm x 180mm
- Cylinder Volume: 12.5L
- Cylinder Construction: Stainless Steel
- Cylinder Finish: Coated with epoxy polyester paint
- Handle Finish: Stainless Steel
- Hose Assembly: PA6 & EPDM & Brass
- Hose/Horn: Yes
- Single Units: Yes
- Valve Material: Nickel Plated Brass
- Ideal for Class A and Lithium Ion battery fires

- Proven to extinguish lithium-ion battery fires without reignition
- Completely fluorine-free, contains no PFOA, PFOS or any fluorine ingredients
- Non-corrosive, non-toxic, non-hazardous and fully biodegradable
- Extinguisher should not be used on an energised AC power source, or a lithium-ion battery that is currently charging
- Comes with a wall mount bracket and hose for easy installation and use

Standards:

- Global Mark ID: 109076
- AS/NZS 1841.2

Section 1 - Identification

Product Identifier

Product Name Water Type Fire Extinguisher With F-500 Encapsulator Agent

Product Code FB4LF-500 and FB9LF-500

Relevant identified uses of the substance or mixture and uses advised against

Recommended use Water Type Fire Extinguisher With F-500 Encapsulator Agent FB4LF-500 and FB9LF-500

Details of the supplier of the safety data sheet

Local Supplier

Firebox Australia Pty Ltd
Lot 5/19 Balook Drive, Beresfield NSW 2322 • Ph: 1300 123 678
Website: www.firebox.net.au • Email: sales@firebox.net.au

Telephone Emergency Contact **02 4966 4465**

Section 1 - Identification

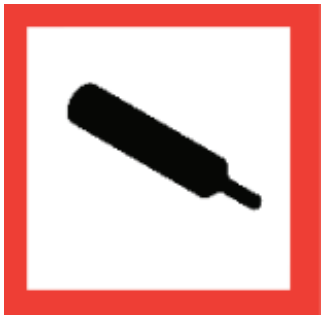
GHS Classification of the substances / mixture: Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th Edition)

Signal Word (s): Warning

Hazard Statement (s): H280 Contains gas under pressure; may explode if heated.

Pictogram (s): Gas Cylinder



Precautionary Statement - Storage: P410+P403 Protect from sunlight. Store in a well-ventilated place.

Precautionary Statement – Disposal: P501 Dispose of contents/container to an approved waste

UN GHS Revision 4

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Fourth Revised Edition

Classification of the substance or mixture

UN GHS
- Eye Irritation 2B
- Hazardous to the aquatic environment, Acute 3

Label Elements

UN GHS **WARNING**

Hazard Statement

- Causes eye irritation harmful to aquatic life

Precautionary Statements

Prevention
- Wear eye protection
- Wash hands after handling
- Avoid release to the aquatic waterway

Response
- EYES: Rinse with water for several minutes.
  Remove contact lenses, if present and easy to do.
  Continue rinsing.
  If eye irritation persists: Get medical advice/attention.

Storage / Disposal
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other Hazards
- None

Section 3 - Composition / Information on Ingredients

Mixtures

- This material is a mixture. 3% of F-500 Encapsulator agent + 97% of clean water

Composition of F-500

Chemical Name	CAS Numbers	%*	Classifications According to Regulations / Directive
Fatty Alkyl Ethers reaction products with Aliphatic Acids	72245-02-4	40% - 50%	**UN GHS Revision 4**: Not Relevant **
Alcohols, C6-12	68603-15-6	5% - 8%	**UN GHS Revision 4:** Not Relevant
2,2',2"- Nitrilotrisethanol Aliphatic Acid Soap	38584-87-1	2% - 4%	**UN GHS Revision 4:** Not Relevant

* Exact concentrations are withheld as a trade secret.
** individual ingredients within the mixture is Not Relevant as individual ingredients are not supplied separately and cannot be separated out by the end user. Further, all data presented in this SDS is based testing of the total composite mixture.

Mixture contains no PFOS, PFOA, or Fluorine Ingredients.

Section 4 - First Aid Measures

Description of first aid measures

Inhilation
- Move victim to fresh air. Obtain medical attention immediately for any breathing difficulties.

Skin	• Wash skin with soapy water. If irritation develops or persists, get medical attention.
Eye	• Flush eyes with running water for at least 10-15 minutes. If eye irritation persists: Get medical attention.
Ingestion	• Do NOT induce vomiting. Give milk or water to dilute stomach contents. Obtain medical attention immediately if ingested.

Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician • Treat Symptomatically.

Section 5 - Fire Fighting Measures

Extinguishing Media

Suitable Extinguishing Media	• Product is a firefighting extinguishing agent. Product is a nonflammable liquid.
Unsuitable Extinguishing Media	• No data available.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards	• Product is a fire fighting extinguishing agent. Product is a nonflammable liquid; however, exposure of concentrate to high heat for extended period could cause combustion.
Hazardous Combustion Products	• No data available.

Advice for Fighters

Wear full protective clothing and self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions	• Wear appropriate personal protective equipment.
Emergency Procedures	• Isolate spill to avoid run off to waterways and storm sewers. Keep unauthorized personnel away.

Environmental precautions

Isolate spill to avoid run off to waterways and storm sewers.

Methods and material for containment and cleaning up

Containment/ Cleanup Measures	• Stop leak if you can do it without risk. SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Containment / Cleanup Measures	• LARGE SPILLS: Dike far ahead of spill for later disposal. When product is used to mitigate a hazardous material, the resultant material must be handled in the same fashion as the hazardous material.

Section 7 - Handling and Storage

Precautions for safe handling

Handling	• Wear appropriate protective clothing. Prevent contact with eyes.

Conditions for safe storage, including any incompatibilities

Storage	• Keep container closed. Store in a well-ventilated place away from incompatible materials. Protect material from direct sunlight. Storage temperature. 35°F-130°F

Section 8 - Exposure Controls / Personal Protection

Control Parameters

Exposure Limits / Guidelines	• Exposure limits are not applicable for product.

Exposure Controls

Engineering Measures / Controls	• Good general ventilation should be used. Ventilation rates should be matched to conditions.

Personal Protective Equipment

Respiratory	• In case of insufficient ventilation, wear suitable respiratory equipment.
Eye / Face	• Wear safety goggles.
Skin / Body	• Wear protective gloves and protective clothing.

Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including procedures to prevent spills and release to waterways.
Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	*Appearance / Description*	Amber liquid with mild odor
Color	Amber	*Odor*	Mild
Odor Threshold	No data available		
General Properties			
Boiling Point	118°C (244°F)	*Melting Point / Freezing Point*	-3°C (26.6°F)
Decomposition Temperature	No data available	*pH*	6.9 to 7.1
Specific Gravity / Relative Density	0.98 - 1.0	*Water Solubility*	Soluble 100%
Viscosity	70 to 100 Centipoise (cPs, cP) or mPas		
Volatility			
Vapor Pressure	2666 hPa @ 25°C(77°F)	*Vapor Density*	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	>93°C (>199.4°F)	*UEL*	No data available
LEL	No data available	*Autoignition*	no data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol / Water Partition coefficient	No data available		

Section 10 - Stability and Reactivity

Reactivity
- No dangerous reaction known under conditions of normal use

Chemical Stability
- Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions
- Hazardous polymerization will not occur.

Conditions to Avoid
- Incompatible materials.

Incompatible Materials
- Strong oxidizing agents.

Hazardous Decomposition Products
- None identified.

Section 11 - Toxicological Information

Information on Toxicological Effects

GHS Properties	Classification
Acute Toxicity	**UN GHS 4** • Acute Oral LD_{50} (Rat) > 5,000 mg/kg
Skin Corrosion / Irritation	**UN GHS 4** • No data available
Serious Eye Damage / Irritation	**UN GHS 4** • Eye irritation 2B
Skin Sensitization	**UN GHS 4** • No available data
Respiratory Sensitization	**UN GHS 4** • No available data
Aspiration Hazard	**UN GHS 4** • No available data
Carcinogenicity	**UN GHS 4** • No available data
Germ Cell Mutagenicity	**UN GHS 4** • No available data
Toxicity for Reproduction	**UN GHS 4** • No available data
STOT - SE	**UN GHS 4** • No available data
STOT - RE	**UN GHS 4** • No available data

Potential Health Effects

Inhalation

Acute (Immediate) • No data available
Chronic (Delayed) • No data available

Skin

Acute (Immediate) • Prolonged contact may cause minor irritation and drying of skin
Chronic (Delayed) • No data available

Eye

Acute (Immediate) • Causes eye irritation
Chronic (Delayed) • No data available

Ingestion

Acute (Immediate) • May cause gastrointestinal irritation/diarrhea
Chronic (Delayed) • No data available

Section 12 - Ecological Information

Toxicity

Product	*CAS*	*Test & Result*
F-500 Multi-Purpose Encapsulator Agent	NDA	**Aquatic Toxicity-Fish:** 96 Hour(s) LC_{50} Golden ode (Leuciscus idus) 75 mg/L **Aquatic Toxicity-Crustacea:** 48 Hour(s) EC_{50} Daphnia magna STRAUS 100 mg/L **Aquatic Toxicity-Algae:** 72 Hour(s) EC_{50} Algae (Desmodesmus subspicatus) 60 mg/L **Microbial Toxicity-Activated Sludge Microorganism (EC_{50})** 3,000 mg/L

• Harmful to aquatic life, Acute 3

Persistence and degradability

• Not persistent in the environment; fully biodegradable.

Bioaccumulative potential

• Not Bioaccumulative.

Mobility in Soil

• No data available.

Other adverse effects

• None known

Section 13 - Disposal Considerations

Waste Treatment Methods

Product Waste	• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Product is discarded as nonhazardous waste under RCRA CFR261. Product may be diluted to 0.25% solution with water and processed through a Municipal or Industrial Waste Water Treatment Plant containing Activated Sludge Microorganisms and fully biodegraded.
Packaging Waste	• Dispose of container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

UN number: UN1044
Proper shipping name: Fire extinguishers with compressed or liquefied gas
Hazard Class or Division: Not a hazardous substance.
Road and Rail Transport (ADG Code):
This material is classified as Dangerous Goods Division 2.2 – Non-flammable non-toxic Gases according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th Edition)
Division 2.2 Dangerous Goods are incompatible in a placard load with any of the following:
- Class 1, Explosives

Division 2.1 Flammable Gases when the Division 2.2 gas has a subsidiary risk 5.1 except when all are packed in cylinders or pressure drums not exceeding 500L capacity.
- Division 4.2, Spontaneously Combustible Substances
- Division 5.2, Organic Peroxides

Marine Transport (IMO/IMDG):
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) fore transport by sea.
Division: 2.2
EMS- F-C, S-V
UN-No: 1044
Special Provisions: 225
Proper shipping Name: Fire extinguishers with compressed or liquefied gas

Air Transport (ICAO/IATA):
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Packing Instructions (cargo only): 213
Packing Instructions (passenger & cargo): Forbidden
Special Provision: A19
UN-No: 1044
Proper shipping Name: Fire extinguishers with compressed or liquefied gas
IMDG Marine pollutant: No
For additional transport information, contact the supplier.
No harm to the environment is expected from this preparation.

Section 15 - Regularity Information

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

- This product does not contain any ingredients or reaction components within the mixture that has restricted use under the US EPA Toxic Substance Control Act.
- This product contains no ingredients or reaction components within the mixture reportable under Superfund Amendments and Reauthorization Act (SARA) Title III, Section 313 of 40 CFR-372 or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Section 16 - Other Information

Disclaimer / Statement of Liability

The information and recommendations presented in this SDS are based on sources, to the best of our knowledge, believed to be accurate and reliable as of the date this SDS was published. This SDS relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any process. We make no representation, warranty or guarantee expressed or implied with respect to such information and assume no liability resulting from its use. It is the information for their own use. We do not accept liability for any loss or damage that may occur from the use of this information.