Safety Data Sheet

Issue Date: 11-April-2026 Revision Date: 10 -April-2026 Version 2

1. IDENTIFICATION

Product identifier

Product Name	Lithium Ion Battery

Other means of identification

SDS #	LIT-003
Product Code	HG-FS48100-150SJ1 HG-FS48100-150SJ1-P HG-FS48100-150SJ1—H/P HG-FS48100-150SJ1-H
UN/ID No	UN3480

Recommended use of the chemical and restrictions on use Recommended Use Battery.

Details of the supplier of the safety data sheet

Supplier Address
Lithion Battery
1350 Wigwam Parkway
Henderson, NV 89074 Phone:
512-527-2900
www.lithionbattery.com/contact-us

Emergency telephone number

Emergency Telephone	INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Emergency Overview Safety Data Sheets (SDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article". OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees. Because all of our batteries are defined as "articles", they are exempt from the requirements of the Hazard Communication Standard, hence an SDS is not required. However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Appearance Battery Physical state Solid Odor Odorless

Classification

The chemicals listed in section 3 are contained in a sealed container. Risk of exposure only occurs if battery is mechanically, thermally, or electrically abused.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Lithium Iron Phosphate	15365-14-7	25-35
Iron	7439-89-6	22-30
Lithium Hexafluorophosphate	21324-40-3	15-22
Copper	7440-50-8	10-15
Graphite	7782-42-5	8-12
Aluminum	7429-90-5	5-8
High molecular polymer	Proprietary	3-5
Nickel	7440-02-0	0.5-1

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	The following information applies if the battery is mechanically, thermally, or electrically abused.
Eye Contact	Flush with water for 30 minutes. Get immediate medical attention. Immediately flush eyes with water for 30 minutes while lifting the upper and lower lids. Get medical attention.
Skin Contact	Flush affected area with lukewarm water for at least 30 minutes. If skin irritation persists, call a physician.
Inhalation	If symptoms are experienced, remove source of contamination or move victim to fresh air. Get medical attention.

Ingestion	Do NOT induce vomiting. Call a physician or Poison Control Center.

Most important symptoms and effects, both acute and delayed

Symptoms	A shorted lithium battery can cause thermal and chemical burns upon contact with the skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water. Dry chemical. Carbon dioxide (CO2). Foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Battery may vent when subjected to excessive heat-exposing, fire, or over voltage condition.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2). Decomposition products can include and are not limited to: Aldehydes, hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and oxides of carbon, sulfur and phosphorus.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required. Ventilate affected area.
Other Information	The material contained within the batteries is only expelled under abusive conditions.
For Emergency Responders	If the battery material is released, remove personnel from the area until fumes dissipate.

Environmental precautions

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Use a shovel and cover battery with sand or vermiculite, place in an approved container, and dispose in accordance with section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Do not expose battery or cell to extreme temperatures or fire. Do not disassemble, crush or puncture battery. Avoid mechanical or electrical abuse.

g any incompatibilities

Conditions for safe storage, includin

Storage Conditions	Insulate positive and negative terminals to avoid short circuit. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Protect from direct sunlight.
Incompatible Materials	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lithium Hexafluorophosphate 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
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
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 (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 natural respirable dust
Aluminum 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	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
		(vacated) TWA: 5 mg/m^3 respirable fraction	
Nickel 7440-02-0	TWA: 1.5 mg/m^3 inhalable particulate matter	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3	IDLH: 10 mg/m^3 TWA: 0.015 mg/m^3

Appropriate engineering controls

Engineering Controls	Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Not necessary under conditions of normal use. In case of battery rupture or leakage, use safety goggles.

Skin and Body Protection	Not necessary under conditions of normal use. In case of battery rupture or leakage, wear rubber apron and Viton rubber gloves.
Respiratory Protection	Not necessary under conditions of normal use. In case of battery venting or rupture, use a self contained full face respiratory mask.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid		
Appearance	Battery	Odor	Odorless
Color	Not determined	Odor Threshold	Not applicable

Property	Values	Remarks • Method
pH	Not applicable	
Melting point / freezing point	Not applicable	
Boiling point / boiling range	Not applicable	
Flash point	Not applicable	
Evaporation Rate	Not applicable	
Flammability (Solid, Gas)	Not determined	
Flammability Limit in Air		
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapor Pressure	Not applicable	
Vapo r Density	Not applicable	
Relative Density	Not applicable	
Water Solubility	Insoluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not applicable	

Autoignition temperature	Not applicable
Decomposition temperature	Not determined
Kinematic viscosity	Not applicable
Dynamic Viscosity	Not applicable
Explosive Properties	Not determined
Oxidizing Properties	Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.
Conditions to Avoid
Heating, mechanical and electrical abuse.

Incompatible materials
If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

Hazardous decomposition products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Inhalation, skin contact and eye contact are possible when the battery is opened. The following is based on exposure to internal contents
Eye Contact	Corrosive fumes will be very irritating to eyes.
Skin Contact	Corrosive fumes will be very irritating to skin.
Inhalation	Corrosive fumes will be very irritating to mucous membranes.
Ingestion	Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50

Lithium Iron Phosphate 15365-14-7	-	> 2000 mg/kg (Rat)	-
Iron 7439-89-6	= 30 g/kg (Rat)	-	-
Graphite 7782-42-5	-	-	> 2000 mg/m^3 (Rat) 4 h
Trade Secret	> 90 mL/kg (Rat)	-	-
Nickel 7440-02-0	> 9000 mg/kg (Rat)	-	> 10.2 mg/L (Rat) 1 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

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

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Chemical name	ACGIH	IARC	NTP	OSHA
Nickel 7440-02-0		Group 2B	Reasonably Anticipated	X

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lastir

Component Information
Not available

Persistence/Degradability Not determined.

Bioaccumulation
There is no data for this product.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

regulations. ld be in accordance with applicable regional, national and local laws and

Contaminated Packaging

US EPA Waste Number

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Nickel 7440-02-0		Included in waste streams: F006, F039		

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

Chemical name	California Hazardous Waste Status
Aluminum 7429-90-5	Ignitable powder
Nickel 7440-02-0	Toxic powder Ignitable powder

14. TRANSPORT INFORMATION

Note: Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN3480
Proper Shipping Name	LITHIUM ION BATTERIES
Hazard class	9

IATA: Cargo Aircraft Only

UN number	UN3480
Proper Shipping Name	LITHIUM ION BATTERIES
Transport hazard class(es)	9

IMDG

UN number	UN3480
Proper Shipping Name	LITHIUM ION BATTERIES
Transport hazard class(es)	9

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Lithium Iron Phosphate	X	ACTIVE	X	X					
Iron	X	ACTIVE	X	X	X	X	X	X	X
Lithium Hexafluorophosphate	X	ACTIVE	X	X	X	X	X	X	X
Copper	X	ACTIVE	X	X	X	X	X	X	X
Graphite	X	ACTIVE	X	X		X	X	X	X
Aluminum	X	ACTIVE	X	X	X	X	X	X	X
Nickel	X	ACTIVE	X	X	X	X	X	X	X

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
IECSC - China Inventory of Existing 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 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	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Nickel 7440-02-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

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 %
Copper - 7440-50-8	7440-50-8	10-15	1.0
Aluminum - 7429-90-5	7429-90-5	5-8	1.0
Nickel - 7440-02-0	7440-02-0	0.5-1	0.1

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		X	X	
Nickel		X	X	

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Nickel - 7440-02-0	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Lithium Hexafluorophosphate 21324-40-3	X		
Copper 7440-50-8	X	X	X
Graphite 7782-42-5	X	X	X
Aluminum 7429-90-5	X	X	X
Nickel 7440-02-0	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards determined	Flammability Not Not determined	Instability Not determined	Special Hazards Not determined
HMIS	Health Hazards determined	Flammability Not Not determined	Physical hazards Not determined	Personal Protection Not determined

Issue Date: 26-Jan-2022

Revision Date: 26-Jan-2022

Revision Note: New product

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