



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Material Safety Data Sheet

Document Number: MSDSSA0201122023

Section 1: Chemical Product and Company Identification

Product Name	Amprius SA02 High Energy Cell
Part Number	SO6954D39-11.0P-S02
Product Use	Battery cells and packs
Company Address	1180 Page Ave. Fremont, CA 94538
Phone Number	(800) 425-8803
Emergency Phone Number	17205149157

Section 2: Hazards Identification

GHS Label Elements

Hazard Classification(s)	Not applicable under normal use in accordance with United Nations Conference on Environment and Development (UNCED) and Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200.
Signal Words	Not applicable under normal use in accordance with United Nations Conference on Environment and Development (UNCED) and Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200.
Hazard Statement(s)	Not applicable under normal use in accordance with United Nations Conference on Environment and Development (UNCED) and Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200.
Precautionary Statements	
Prevention	P202: Do not handle until all safety precautions have been read and understood.

MSDSSA0201122023



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Response

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Safe Storage

P370: In case of fire: Use carbon dioxide, dry chemical, or water extinguisher.

Disposal

P402: Store in a dry place.
P410: Protect from sunlight.

P501: Dispose of batteries in accordance with applicable hazardous waste regulations.

Physical and Chemical Risk

No information available.

Health Hazard

No information available.

Environmental Hazards

No information available.

Other Hazards

No information available.

Section 3: Composition / Information on Ingredients

Classification of substance or mixture: Mixture

Chemical Composition	CAS No.	Weight (%)
Lithium Nickel Cobalt Manganese Oxide	182442-95-1	<53
(PVDF) Polyvinylidene Fluoride	24937-79-9	<2
Ethylene carbonate	96-49-1	<4
Dimethyl carbonate	616-38-6	<4
Lithium hexafluorophosphate	21324-40-3	<2.5
Ethylene carbonate	96-49-1	<1.5
Graphite	7782-42-5	<17
(SBR) Styrene-Butadiene Polymer	9003-55-8	<1
Copper	7440-50-8	<7
Aluminum	7429-90-5	<4
Silicon	77440-21-3	<4



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Section 4: First Aid Measures

General Information	No special measures required.
After Inhalation	Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.
After Skin Contact	Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.
After Eye Contact	Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.
After Swallowing	Do not induce vomiting. Get medical attention.
Acute And Delayed Effects	No relevant details information.
Health Effects	No relevant details information.
To Protect the Rescuers Advice	No relevant details information.
To The Doctor's Advice	Need timely medical treatment and special symptoms, no relevant details information.

Section 5: Fire Fighting Measures

Suitable Extinguishing Agents	Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powder, CO ₂ . (> 150°C (302°F))
Special Hazards Arising from The Substance or Mixture	Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium-ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C (302°F)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.
Special Hazards Arising from The Substance or Mixture	Battery may burst and release hazardous decomposition products when exposed to a fire



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

situation. Lithium-ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C (302°F)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

Attention Extinguishing Method and Protective Measures

Wear self-contained respirator. Wear fully protective impervious suit.

Section 6: Accidental Release Measures

Personnel Protective Measures, Protective Equipment, and Emergency Disposal Procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Environmental Precautions

Do not allow material to be released to the environment without proper governmental permits.

Steps To Be Taken in Case Material Is Spilled or Released and Waste Disposal Method

Steps to be taken in case material is spilled or released and Waste disposal method: Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches, and bodies of water. All waste must refer to the United Nations, the national and local regulations for disposal.

To Prevent the Secondary Disasters Prevention Measures

To prevent the secondary disasters prevention measures: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

Section 7: Exposure Controls / Personal Protection



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Occupational Exposure Limit

No relevant information.

Biological Limit

No relevant information.

Detection

No relevant information.

Engineering Control / General Protective and Hygienic Measures

The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages, and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work.

Respiratory Protection

Use suitable respirator when high concentrations are present.

Personal Protection Equipment



Protective gloves



Tightly sealed goggles

Section 8: Physical and Chemical Properties

Appearance

Silvery

Form

Approximate cuboid

Odor

If leaking, smells of medical ether

pH

Not applicable as supplied.

Flash Point

Not applicable unless individual components exposed.

Flammability

Not applicable unless individual components exposed.



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Relative Density	Not applicable unless individual components exposed.
Solubility (Water)	Not applicable unless individual components exposed.
Solubility (Other)	Not applicable unless individual components exposed.

Section 9: Stability and Reactivity

Chemical Stability	Stable in normal circumstances.
Possibility of Hazardous Reactions	Data not available.
Conditions to Avoid	Flames, sparks, and other sources of ignition, incompatible materials.
Incompatibilities	Oxidizing agents, acid, base.
Hazardous Combustible Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.

Information on Toxicological Effects

Acute Toxicity LD/LC50 Values Relevant for Classification	Not available.
LC50	Lethal concentration, 50 percent kill
LD50	ethal concentration, 50 percent kill
Skin Irritation/Corrosion	No further relevant information available.
Eyes Stimulus/Corrosion	No further relevant information available.
Breathing Or Skin Irritation	No further relevant information available.
Germ Cell Respectively	No further relevant information available.
Carcinogenicity	No further relevant information available.



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Reproductive Toxicity	No further relevant information available.
Specific Target Organ System Toxicity Disposable Contact	No further relevant information available.
Specific Target Organ System Toxicity, Repeated Contact	No further relevant information available.
Inhalation Hazard	No further relevant information available.
Potentially Harmful Effects	No further relevant information available.

Section 12: Ecological Information

Ecological Toxicity

Aquatic Toxicity	No further relevant information available.
Persistence and Degradability	No further relevant information available.

Behavior In Environmental Systems

Bio Accumulative Potential	No further relevant information available.
Mobility In Soil	No further relevant information available.

Ecological Effects

Additional Ecological Information	No further relevant information available.
Potentially Harmful Effects	No further relevant information available.

General Notes Do not allow material to be released to the environment without proper governmental permits

Other Adverse Effects No further relevant information available.

Section 13: Disposal Considerations



Amprius Technologies, Inc.
1180 Page Ave. Fremont, CA 94538
orders@amprius.com
www.amprius.com

Waste Treatment Methods and Recommendation

Consult state, local, or national regulations to ensure proper disposal.

Uncleaned Packaging and Recommendation

Disposal must be made according to official regulations.

Section 14: Transport Information

Label for Conveyance	Lithium Battery Class 9 Hazard Label, or Cargo Aircraft Only Label UN3480 & 3481
UN Number	3480 & 3481
Packaging Group	II
Marine Pollutant	No
Proper Shipping Name	Lithium-Ion Batteries (Including Lithium Polymer Batteries), Lithium Ion Battery Packed With Equipment, Lithium Ion Battery Contained In Equipment
Transport information	Lithium battery is of a type proved to meet the Requirements of each test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. (Report No.: LA2022B1088004U) The lithium-ion battery with a watt-hour rating exceeds 100Wh. The lithium-ion cell with a watt-hour rating exceeds 20Wh, the lithium-ion battery according to Section IA of Packing Instruction 965, or Section I of Packing Instruction 966~967 of the IATA Dangerous Goods Regulations 64th Edition may be transported. The goods shall be complied with the requirements of special provision 188 of IMDG CODE (Amdt. 40-20) 2020, The goods to be transport as Dangerous Good.
Transport Fashion	By air, by sea, by railway, by road.

Section 15: Regulatory Information



Relevant Regulations

Amprius Technologies, Inc.

1180 Page Ave. Fremont, CA 94538

orders@amprius.com

www.amprius.com

Dangerous Goods Regulations
Recommendations on the Transport of Dangerous Goods Model Regulations
International Maritime Dangerous Goods
Technical Instructions for the Safe Transport of Dangerous Goods
Classification and code of dangerous goods
Occupational Safety and Health Act (OSHA)
Toxic Substance Control Act (TSCA)
Consumer Product Safety Act (CPSA)
Federal Environmental Pollution Control Act (FEPCA)
The Oil Pollution Act (OPA)
Superfund Amendments and Reauthorization Act Title III (302/311/312/313) (SARA)
Resource Conservation and Recovery Act (RCRA)
Safety Drinking Water Act (CWA)
California Proposition 65
Code of Federal Regulations (CFR)
In accordance with all Federal, State, and local laws

Section 16: Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available after the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.