



Chemistry for Safer, Sustainable Life

SAFETY DATA SHEET

Section 1: Identification

Product Name: Lithium Formate Monohydrate

Product ID: 100FO12

Chemical Name/Synonyms: Formic acid lithium salt monohydrate, lithium methanoate monohydrate

CAS: 6108-23-2

Molecular Formula: CH₃LiO₃

Molecular weight: 69.97 g/mol

Potential Uses: Reagent, lithium battery, EPR dosimeter, NLO agent, ceramics precursor, etc.

Restrictions on Uses: Not for medical, household, or food use.

Company: BioFuran Materials LLC

920 William Pitt Way, Pittsburgh, PA 15238

In emergency call 911 or for information about this SDS, use this contact phone#: 412-376-7101

Section 2: GHS Hazard(s) Identification

Hazard Classification: Lithium formate hydrate is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Causes skin irritation (Category 2), H315

Causes serious eye irritation (Category 2A), H319

Signal Word(s): Warning

Pictograms:



Precautionary Statements:

P280 – Wear protective gloves / protective clothing, eye protection / face protection

P302+P351+P338 – If in your eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and rinse for at least 15 minutes.

P312 – Immediately call a poison control center or a physician if you feel unwell.

Other hazards: none

Section 3: Composition/ Information on Ingredients

Chemical Name	Synonym	CAS#	Conc.
Lithium formate monohydrate	Formic acid lithium salt monohydrate	6108-23-2	100%

Section 4: First-Aid Measures

After skin contact: Wash off with soap and plenty of water. Consult a physician.

After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

Section 5: Fire-Fighting Measures

Suitable extinguishing agents: Lithium formate monohydrate may be combustible at high temperature. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes.

Section 6: Accidental Release Measures

Personal precautions: Wear protective equipment as described in Section 8.

Measures for environmental protection: Do not dispose product in municipal sewers or drains. Notify authorities if product enters sewers or public waters.

Measures for cleaning/collecting: Pick up and arrange disposal without creating dust. Sweep up and shovel any spillages. Keep all wastes and residues in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid dust formation and do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

Storage: Keep container tightly closed.

General Hygiene: Eating, drinking, and smoking in the work area is prohibited. Wash hands after use and remove contaminated clothing and protective equipment before entering eating areas.

Section 8: Exposure Controls/Personal Protection

Component	CAS No.	Value	Control Parameters
Lithium formate monohydrate	6108-23-2	ACGIH TWA (mg/m ³)	Not listed

General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Breathing equipment: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (teal cartridge) respirator.

Protection of hands: Neoprene or nitrile rubber gloves.
Eye protection: Chemical goggles. Contact lenses should not be worn.

Section 9: Physical and Chemical Properties

Appearance: Crystalline white powder
Odor: odorless
Odor threshold: No data available
pH: No data available
Melting point/melting range: 92-96°C
Boiling point/boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability: No data available
Upper/lower flammability or explosive limits: No data available
Auto ignition temperature: No data available
Danger of explosion: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Solubility in/Miscibility with water: 276-284g/L

Section 10: Stability and Reactivity

Reactivity: No known reactivity under normal conditions of use
Chemical stability: Stable under ambient conditions. Keep in closed container.
Conditions to avoid: Avoid heat and moisture
Incompatible materials: Strong oxidizing agents, strong acids
Hazardous decomposition products: oxides of carbon and lithium

Section 11: Toxicological Information

Acute toxicity: No data available
Potential routes of exposure/potential health effects
Skin: Slightly hazardous in case of skin contact
Eye: May irritate eyes
Inhalation: May cause respiratory irritation
Ingestion: Maybe harmful if swallowed
Carcinogenic effects: No data available
Mutagenic effects: Not mutagenic
Reproductive toxicity: No data available
Sensitization: No data available
Target organs: No data available

Section 12: Ecological Information

Ecotoxicity: No data available
Mobility: No data available
Biodegradation: readily biodegradable
Bioaccumulation: No data available
Bioaccumulation: No data available

Section 13: Disposal Considerations

This material or its residues should not be disposed in drains or in regular trash cans. Contact a licensed waste disposal professional to dispose this material or its residues.

Section 14: Transport Information

DOT regulations: Not dangerous goods

- **Land transport ADR/RID (cross-border):** Not regulated for transport
- **Maritime transport IMDG:** Not dangerous goods
- **Air transport ICAO-TI and IATA-DGR:** Not dangerous goods

Section 15: Regulatory Information (non-mandatory)

US Federal Regulations

SARA Section 302: This material is not subject to reporting requirements of SARA Title III, Section 302

SARA Section 313: This material is subject to reporting levels established by SARA Title III, Section 313

TSCA (Toxic Substances Control Act): Lithium formate monohydrate is listed on the United States TSCA

Section 16: Other Information

SDS date of preparation/update: 09/10/2020 Version 001