SAFETY DATA SHEET

Section 1: Identification

Product Name: Sodium Levulinate
Product ID: 100LE13
Chemical Name/Synonyms: Sodium 4-oxopentanoate, Levulinic acid sodium salt, Sodium 4-oxovalerate
CAS: 19856-23-6
Molecular Formula: C5H7NaO3
Molecular weight: 138.10 g/mol
Potential Uses: Reagent, preservative, etc.
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: Sodium levulinate is not classified under the Global Harmonized System
Hazard Classification: no data available

Signal Word(s): Warning

Hazard Statements: none available

Pictograms: none available

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.
Sodium levulinate	Levulinic acid sodium salt	19856-23-6	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

General: Sodium levulinate is not expected to be a fire hazard.
Suitable extinguishing agents: 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. Do not breathe dust.

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: Easting, 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
Sodium levulinate	19856-23-6	ACGIH TWA (mg/m^3)	None established

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: White to off-white granular powder
Odor: Very faint levulinic acid odor
Odor threshold: No data available
pH: No data available

Melting point/melting range: No data available
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: Minimal but soluble in DMSO

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 exposing dust to sparks, heat, or flames.
Incompatible materials: Strong oxidizing agents, strong acids
Hazardous decomposition products: oxides of carbon and sodium

Section 11: Toxicological Information

Acute toxicity: No known reactivity under normal conditions of use.
Potential routes of exposure/potential health effects
Skin: No irritation established
Eye: No irritation established
Inhalation: No irritation established
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: Low bioaccumulation potential
Bioaccumulation: Not persistent

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 Tittle 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): Sodium levulinate is listed on the United States TSCA

Section 16: Other Information

SDS date of preparation/update: 09/08/2020 Version 001