



Chemistry for Safer, Sustainable Life

# Butyl Levulinate SAFETY DATA SHEET

## Section 1: Identification

**Product Name:** Butyl levulinate

**CAS Synonym:** Butyl 4-oxopentanoate, levulinic acid butyl ester

**CAS:** 2052-15-5

**Molecular Formula:** C<sub>9</sub>H<sub>16</sub>O<sub>3</sub>

**Molecular weight:** 172.22g/mol

**Product ID:** BULE00100

**Potential Uses:** R&D uses only

**Product Supplier:** BioFuran Materials LLC

920 William Pitt Way, Pittsburgh, PA 15238

**In an emergency or for information about this SDS, call:** 412-376-7101

## Section 2: GHS Hazard(s) Identification

**Hazard Classification:** Not classified yet

**Hazard Statements:** None

**Signal Word(s):** Warning

**Pictograms:**



**Precautionary Statements:**

P210 – Keep away from heat/sparks/open flames/hot surfaces – no smoking

P264 – Wash hands thoroughly after handling

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

P301+P312+P330 – If swallowed, call a Poison Control Center or a physician. Rinse mouth thoroughly with water.

P305+P351+P338 – If in eyes, rinse thoroughly with water for several minutes. Remove contact lenses if present. Continue rinsing for several minutes.

P337+P313 – If eye irritation persists, get medical advice/attention

**Description of other hazards:** No other hazards

## Section 3: Composition/ Information on Ingredients

Chemical Name	Synonym	CAS#	Conc.
Butyl levulinate	Butyl 4-oxopentanoate	2052-15-5	95-100%

#### Section 4: First-Aid Measures

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

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

**After inhalation:** If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**After swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Consult a physician or call the Poison Control Center

#### Section 5: Fire-Fighting Measures

**Fire hazards:** Burning of substance in fire releases toxic gases. In case of a fire, wear self-contained breathing apparatus as combustion may produce hazardous fumes.

**Suitable extinguishing agents:** Use water spray, sand, dolomite, 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 and avoid inhalation of fumes as well as eye and/or skin contact.

**Measures for environmental protection:** Do not dispose product or its residues 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 splashes or fumes. Mop up any spillages and keep all product wastes and residues in suitable, closed containers for proper disposal.

#### Section 7: Handling and Storage

**Handling:** Keep away from heat, sparks, and open flames. Do not use substance in confined spaces without adequate ventilation. Avoid contact with skin and eyes. Use a respirator when working in poorly ventilated spaces.

**Storage:** Keep container tightly closed in a dry, well ventilated area.

#### Section 8: Exposure Controls/Personal Protection

**Protection of hands:** Neoprene or nitrile rubber gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact. Dispose used gloves after use in line with good laboratory practices.

**Body protection:** Wear chemical resistant aprons, coveralls, or lab coats.

**Eye protection:** Chemical goggles with side shields conforming to NIOSH (US). Contact lenses should not be worn.

**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 P95 respirator is recommended.

### Section 9: Physical and Chemical Properties

**Form:** Colorless to yellowish liquid

**Odor:** smoky savory scent

**pH:** 6.5-7.5

**Melting point/melting range:** 5 to 10°C

**Boiling point/boiling range:** 234-240°C

**Flash point:** 116-124°C

**Flammability:** No data available

**Vapor pressure:** No data available

**Solubility in/miscibility with water:** Slightly soluble in water, soluble in alcohols, oils, paraffins, etc.

**Viscosity:** Not determined

**Surface tension:** No data available

**Relative density:** 0.88-1.2g/mL

### Section 10: Stability and Reactivity

**Reactivity:** No particular reactivity concerns

**Chemical stability:** Stable under ambient conditions

**Conditions to avoid:** Avoid high heat, sparks, and flames

**Incompatible materials:** Hydroxides, soluble carbonates, strong oxidizing agents, sulfuric acid

**Hazardous decomposition products:** Oxides of carbon (COx)

### Section 11: Toxicological Information

**Acute toxicity:** No data available

**Potential routes of exposure/potential health effects**

**Skin:** Causes mild skin irritation

**Eye:** Causes temporary eye irritation

**Inhalation:** No data available

**Ingestion:** Harmful if swallowed

**Carcinogenic effects:** No data available

**Mutagenic effects:** No data available

**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

Avoid disposal in public sewers and drains

### 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 classified as dangerous goods

- **Land transport ADR/RID (cross-border):** Not classified as dangerous for road transport
- **Maritime transport IMDG:** Not classified as dangerous for sea transport
- **Air transport ICAO-TI and IATA-DGR:** Not classified as dangerous for air transport

### Section 15: Regulatory Information

#### US Federal Regulations

- Hazardous substance and Reportable Quantity:
  - SARA 302: Not listed
  - SARA 313: Not listed
- State Regulations Right-to-Know
  - Massachusetts – Not listed
  - New Jersey – Not listed
  - Pennsylvania – Not listed
  - California Proposition 65: Not listed
- Other Information
  - NFPA Rating
    - Health: 0
    - Flammability: 1
    - Instability: 0
  - HMIS Classification
    - Health: 0
    - Flammability: 1
    - Physical: 0

Butyl levulinate is not listed on the United States TSCA

### Section 16: Other Information

**SDS date of preparation/update:** 01/04/2020 Version 001

**Disclaimer:** For R&D use only