



Chemistry for Safer, Sustainable Life

# SAFETY DATA SHEET

## Section 1: Identification

**Product Name:** N,N-dimethylethanolammonium formate

**CAS Synonym:** N,N-dimethylethanolamine formic acid salt

**CAS:** 59101-30-3

**Molecular Formula:** C<sub>5</sub>H<sub>13</sub>NO<sub>3</sub>

**Molecular weight:** 135.16g/mol

**Product ID:** DMEAFO-001

**Potential Uses:** Solvent, reagent, electrolyte, additive

**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:** Harmful on skin contact or if swallowed

**Signal Word(s):** Warning

**Hazard Statements:** Substance not fully tested yet. Hazards have not been classified yet.

**Pictograms:**



**Precautionary Statements:**

P262 – If in eyes, rinse thoroughly with water for several minutes. Wear eye protection / face protection

P264 – Wash hands thoroughly after handling

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

P302+P352 – If on skin, wash with plenty of soap and water for at least 15 minutes

P332+P313 – If skin irritation occurs, get medical advice / attention

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

P362+P364 – Take off contaminated clothing and wash them before reuse.

**Description of other hazards:** none available, substance not fully tested yet.

## Section 3: Composition/ Information on Ingredients

Chemical Name	Synonym	CAS#	Conc.
N,N-dimethylethanolammonium formate	N,N-dimethylethanolamine formic acid salt	59101-30-3	95-100%
Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335			
<b>Section 4: First-Aid Measures</b>			
<p><b>After skin contact:</b> Wash off with soap and plenty of water for at least 15 minutes. Consult a physician.</p> <p><b>After eye contact:</b> Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.</p> <p><b>After inhalation:</b> If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</p> <p><b>After swallowing:</b> Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Consult a physician.</p>			
<b>Section 5: Fire-Fighting Measures</b>			
<p><b>Fire hazards:</b> Burning of substance in fire releases toxic gases. In case of a fire, wear self-contained breathing apparatus as combustion may produce hazardous fumes.</p> <p><b>Suitable extinguishing agents:</b> Use water spray, sand, suitable foam, dry chemical or carbon dioxide.</p> <p><b>Special protective equipment for firefighters:</b> Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes.</p>			
<b>Section 6: Accidental Release Measures</b>			
<p><b>Personal precautions:</b> Wear protective equipment and avoid inhalation of fumes as well as eye and/or skin contact.</p> <p><b>Measures for environmental protection:</b> Do not dispose product or its residues in municipal sewers or drains. Notify authorities if product enters sewers or public waters.</p> <p><b>Measures for cleaning/collecting:</b> In case of spill, absorb on sand or vermiculite. Pick up residues 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.</p>			
<b>Section 7: Handling and Storage</b>			
<p><b>Handling:</b> 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.</p> <p><b>Storage:</b> Hygroscopic substance, keep container tightly closed in a dry, well ventilated area.</p>			
<b>Section 8: Exposure Controls/Personal Protection</b>			

**Protection of hands:** Material is compatible with chemical-resistant gloves. Use 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 viscous liquid

**Odor:** No characteristic 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

**Flammability:** No data available

**Vapor pressure:** No data available

**Solubility:** Soluble in water, methanol, ethanol, DMSO, acetonitrile, and dichloromethane,. Insoluble in toluene, THF, hexane, and ethyl acetate.

**Viscosity:** 136-146 Cp (@ 25°C)

**Surface tension:** No data available

**Relative density:** 1.0-1.3g/mL

**Conductivity:** 3.1-3.5 mS/cm<sup>-1</sup>

### Section 10: Stability and Reactivity

**Reactivity:** No particular reactivity concerns. Stable substance

**Chemical stability:** Stable under ambient conditions

**Conditions to avoid:** Avoid contact strong oxidizers, strong bases, strong acids, and metals. Avoid long exposure to air, substance absorbs moisture from the air.

**Incompatible materials:** Strong oxidizers, strong bases, strong acids, and metals.

**Hazardous decomposition products:** Oxides of carbon (CO<sub>x</sub>) and nitrous gases (NO<sub>x</sub>)

### Section 11: Toxicological Information

**Acute toxicity:** Substance not fully tested yet. Exercise caution when handling or using.

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

**Skin:** Causes skin irritation

**Eye:** Causes eye irritation

**Inhalation:** May cause irritation

**Ingestion:** Harmful if ingested.

**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 (non-mandatory)

**Ecotoxicity:** Caution! Substance not fully tested. Exercise due care when handling or using.  
**Mobility:** No data available  
**Biodegradation:** No data available  
**Bioaccumulation:** No data available  
Avoid disposal in public sewers and drains

### Section 13: Disposal Considerations (non-mandatory)

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 (non-mandatory)

**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 (non-mandatory)

**P262:** Avoid contact of substance with eyes, skin, or on personal clothing.  
**P280:** Wear nitrile gloves, apron (or lab coat), goggles, and face protection  
**P305 + P351 + P338:** If in the eyes, remove contact lenses if present and rinse continuously with water for several minutes  
**P313:** Get medical attention / advice  
**S24/25:** Avoid contact with the skin or eyes  
**S26:** In case of contact with the skin or eyes, rinse immediately with plenty of water and seek medical advice  
**S28:** In case of contact with the skin, wash immediately with plenty of water and soap  
**S36/37/39:** Wear suitable protective clothing including lab coat, safety goggles, nitrile gloves, and face protection  
N,N-dimethylethanolammonium formate is listed on the United States TSCA

### Section 16: Other Information

**SDS date of preparation/update:** 05/27/2020 Version 001  
**Disclaimer:** For R&D use only, not for drug or household use.