

Sodium Formate MSDS

1. Product Name and Identification

Product Name: [Sodium Formate](#)

Synonyms: Formic acid sodium salt

Chemical Formula: HCOONa

Molecular Weight: 68.01 g/mol

CAS Number: 141-53-7

Intended Use: Industrial chemical, de-icer, dye auxiliaries, leather tanning

2. Composition/Ingredients

Substance	CAS Number	Proportion (%)
Sodium Formate	141-53-7	≥98%
Impurities (trace levels) ---	---	≤2%

3. Hazards Identification

Classification:

- Not classified as hazardous under GHS guidelines.
- May cause skin, eye, and respiratory irritation upon prolonged exposure.

Potential Hazards:

- **Health Hazards:** Prolonged skin or eye contact may cause irritation. Dust inhalation can cause mild respiratory discomfort.
- **Environmental Hazards:** Low environmental toxicity, but avoid large-scale release into aquatic environments.

GHS Label Elements:

- **Pictogram:** Not required.
- **Signal Word:** Warning
- **Hazard Statements:**
 - H315 - May cause mild skin irritation.
 - H319 - May cause eye irritation.
 - H335 - May cause respiratory irritation.
- **Precautionary Statements:**
 - Avoid inhalation of dust.
 - Wash hands thoroughly after handling.

4. First Aid Measures

Skin Contact:

Wash thoroughly with soap and water. Remove contaminated clothing. If irritation persists, seek medical advice.

Eye Contact:

Rinse carefully with water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if symptoms worsen.

Inhalation:

Move to a well-ventilated area or fresh air. Seek medical attention if respiratory discomfort continues.

Ingestion:

Rinse mouth with water. Do not induce vomiting. Seek immediate medical advice if discomfort occurs.

5. Handling and Storage

Handling:

- Handle in a well-ventilated area. Avoid dust formation.
- Use protective equipment when handling large quantities.
- Avoid contact with skin, eyes, and clothing.

Storage:

- Store in a cool, dry, and well-ventilated location.
- Keep the container tightly sealed. Protect from heat and moisture.
- Avoid storing near strong acids or oxidizing agents.

6. Exposure Controls/Personal Protection

Engineering controls:

Maintain proper ventilation or use local exhaust systems to control dust levels in work areas.

Personal Protection Equipment (PPE):

- **Eye Protection:** Safety goggles or glasses with side shields.
- **Skin Protection:** Wear chemical-resistant gloves and full-sleeve protection.
- **Respiratory Protection:** Use dust masks or respirators when handling powdered or large quantities.

Exposure Limits:

No established regulatory exposure limits for Sodium Formate.

7. Physical and Chemical Properties

Property	Value
Form	Crystalline powder
Color	White
Odor	Slightly pungent, odorless
pH (10% solution)	6-8
Boiling Point	Not applicable
Melting Point	~253°C (decomposes)
Solubility (Water)	Highly soluble
Specific Gravity	~1.92
Flash Point	Non-flammable

8. Stability and Reactivity

Stability: Stable under normal ambient temperature and pressure conditions.

Conditions to Avoid:

- High temperatures
- Exposure to humidity or prolonged moisture

Materials to Avoid: Strong acids, oxidizers, or strong bases.

Decomposition Products:

Releases carbon dioxide, carbon monoxide, and formic acid upon decomposition.

9. Toxicological Information

Route of Exposure: Skin contact, eye contact, inhalation, ingestion.

Toxic Effects:

- Mild skin, eye, and respiratory tract irritation.
- Low oral toxicity.

Chronic Effects:

- Repeated exposure may cause skin dryness or slight irritation.

LD50 Data:

- Oral (rat): ~11,200 mg/kg

10. Disposal Considerations

Dispose of in compliance with local, regional, and national regulations. Small quantities can be dissolved in water and neutralized before disposal. Avoid discharge into water systems or natural water bodies.

For larger quantities, contact an approved waste disposal facility. Follow environmental management standards to minimize ecological impact.
