

SAFETY DATA SHEET

Creation Date 26-Sep-2009

Revision Date 18-Dec-2025

Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name Formic acid, sodium salt

Cat No. : AC148230000; AC148230010; AC148230050; AC148230051

CAS No 141-53-7

Synonyms Formic acid sodium salt

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

Classification according to [US] OSHA (29 CFR 1910.1200, 2024)

| | |
|--|------------|
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |
| Combustible dust | Yes |

Label Elements

Signal Word

Warning

Hazard Statements

May form combustible dust concentrations in air
Causes eye irritation
Causes skin irritation
May cause respiratory irritation

**Precautionary Statements****Prevention**

Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Response

Call a POISON CENTER or doctor if you feel unwell

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Skin

IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing
If skin irritation occurs: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Heating may cause an explosion

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

Other hazards

Hygroscopic. May be harmful if swallowed. May cause sensitization of susceptible persons.

3. Composition/information on Ingredients

| Component | CAS No | Weight % |
|----------------|----------|----------|
| Sodium formate | 141-53-7 | >95 |

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

| | |
|--|--|
| Ingestion | Do NOT induce vomiting. Get medical attention. |
| Most important symptoms and effects | . May cause adverse kidney effects: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|--|
| Suitable Extinguishing Media | Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | No information available |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Fine dust dispersed in air may ignite. Dust can form an explosive mixture with air.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Sodium oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

| | | | |
|---------------|---------------------|--------------------|-------------------------|
| Health | Flammability | Instability | Physical hazards |
| 2 | 1 | 1 | N/A |

6. Accidental release measures

| | |
|----------------------------------|---|
| Personal Precautions | Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid dust formation. Do not touch damaged packages or spilled material. |
| Environmental Precautions | See Section 12 for additional Ecological Information. |

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and Storage

| | |
|-----------------|---|
| Handling | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin and eyes. Do not breathe dust. |
| Storage. | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Protect from direct sunlight. Incompatible Materials. Strong oxidizing agents. Strong acids. |

8. Exposure controls / personal protection

| | |
|----------------------------|---|
| Exposure Guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|---|

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particle filter.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

| | | | |
|--|---------------------------------|-----------------|--------------------------|
| Physical State | Powder Solid | | |
| Color | Off-white | | |
| Odor | pungent | | |
| Odor Threshold | No information available | | |
| Property | Values | Remarks | • Method |
| Melting Point/Range | 258 - 261 °C / 496.4 - 501.8 °F | | |
| Softening Point | No data available | | |
| Boiling Point/Range | 360 °C / 680 °F | | |
| Flash Point | No information available | Method - | No information available |
| Flammability (liquid) | Not applicable | Solid | |
| Flammability (solid,gas) | No information available | | |
| Explosion Limits | No data available | | |
| Autoignition Temperature | No data available | | |
| Decomposition Temperature | 350 °C | | |
| pH | 7-8.5 | 5% aq.sol | |
| Viscosity | Not applicable | Solid | |
| Water Solubility | 550 g/L (20°C) | | |
| Solubility in other solvents | No information available | | |
| Partition Coefficient (n-octanol/water) | | | |
| Vapor Pressure | No data available | | |
| Density / Specific Gravity | 1.92 | | |
| Bulk Density | No data available | | |
| Vapor Density | Not applicable | Solid | |
| Particle characteristics | No data available | | |
| Other Information | | | |
| Molecular Formula | C H Na O2 | | |
| Molecular Weight | 68.01 | | |
| Evaporation Rate | Not applicable - Solid | | |

10. Stability and reactivity

| | |
|---|--|
| Reactive Hazard | None known, based on information available |
| Stability | Hygroscopic. Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. Exposure to moist air or water. Avoid dust formation. Ignitions sources - heat, sparks and open flames. |
| Incompatible Materials | Strong oxidizing agents, Strong acids |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO ₂), Sodium oxides |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Information on expected route of exposure

| | |
|-------------------|--|
| Inhalation | Avoid breathing dust or spray mist. |
| Ingestion | No known effect based on information supplied. |
| Eyes | Not an expected route of exposure. |
| Skin | No known effect based on information supplied. |

Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------|----------------------------|---------------------------|------------------------------|
| Sodium formate | LD50 = 11200 mg/kg (Rat) | LD50 > 2000 mg/kg (Rat) | LC50 > 0.67 mg/L (Rat) 4 h |

| | |
|---|---|
| Toxicologically Synergistic Products | No information available |
| (b) skin corrosion/irritation; | Based on available data, the classification criteria are not met |
| (c) serious eye damage/irritation; | Based on available data, the classification criteria are not met |
| (d) respiratory or skin sensitization; | |
| Respiratory | Based on available data, the classification criteria are not met |
| Skin | Based on available data, the classification criteria are not met |
| | No information available |
| (e) germ cell mutagenicity; | Based on available data, the classification criteria are not met |
| | Not mutagenic in AMES Test |
| (f) carcinogenicity; | Based on available data, the classification criteria are not met |
| | The table below indicates whether each agency has listed any ingredient as a carcinogen |

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|----------------|----------|------------|------------|------------|------------|------------|
| Sodium formate | 141-53-7 | Not listed | Not listed | Not listed | Not listed | Not listed |

| | |
|-----------------------------------|--|
| (g) reproductive toxicity; | Based on available data, the classification criteria are not met |
|-----------------------------------|--|

| | |
|---|---|
| (h) STOT-single exposure; | Based on available data, the classification criteria are not met |
| (i) STOT-repeated exposure; | Based on available data, the classification criteria are not met |
| Target Organs | None known. |
| (j) aspiration hazard; | Not applicable Solid |
| Other Adverse Effects | The toxicological properties have not been fully investigated. The hazards associated with formaldehyde may be seen in this product. May be harmful if swallowed |
| Symptoms / effects, both acute and delayed | May cause adverse kidney effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| Other Adverse Effects | The toxicological properties have not been fully investigated. The hazards associated with formaldehyde may be seen in this product. May be harmful if swallowed. |
| Endocrine Disrupting Properties | This product does not contain any known or suspected endocrine disruptors. |

12. Ecological information

Ecotoxicity

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. Regulatory Information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|----------------|----------|------|---|-----------------------------|
| Sodium formate | 141-53-7 | X | ACTIVE | - |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|----------------|----------|-----|-----|-----------|-------|------|------|------|-------|----------|
| Sodium formate | 141-53-7 | X | - | 205-488-0 | X | X | X | X | X | KE-17247 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

| Component | CAS No | REACH (1907/2006) - | REACH (1907/2006) - | REACH Regulation (EC |
|-----------|--------|---------------------|---------------------|----------------------|
|-----------|--------|---------------------|---------------------|----------------------|

| | | Annex XIV - Substances Subject to Authorization | Annex XVII - Restrictions on Certain Dangerous Substances | 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|----------------|----------|---|---|--|
| Sodium formate | 141-53-7 | - | - | - |

Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|----------------|----------|----------|------------------------------|---------------------------|--|
| Sodium formate | 141-53-7 | Listed | Not applicable | Not applicable | Not applicable |

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|----------------|----------|---|--|----------------------------|------------------------------------|
| Sodium formate | 141-53-7 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other Information**Prepared By**

Product stewardship (Regulatory Affairs)
Thermo Fisher Scientific
email - begel.sdsdesk@thermofisher.com

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18-Dec-2025

Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS