

Safety Data Sheet



SECTION 1: Identification of the substance/mixture and the company/undertaking

1.1 Production identifiers

Product name : SODIUM FORMATE
Brand : CJ Chemicals LLC
CAS-No. : 141-53-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : CJ Chemicals LLC
3469 E Grand River Rd #112
Howell, MI 48843
United States

Telephone : +1 (888) 274-1044

1.4 Emergency Telephone

Emergency Phone # : 1-800-424-9300 CHEMTREC (USA)
1-703-527-3887 CHEMTREC (international) 24 hours/day; 7 days/week

2. HAZARDS IDENTIFICATION

Classification

Label elements

Symbols/Pictograms
Not applicable

Signal word
None

Hazard statements

None

Precautionary Statements

Not applicable

Supplemental information

Not applicable.

Hazards not otherwise classified (HNOC)

None known

Unknown Acute Toxicity

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Chemical Name	CAS No	Weight-%
Sodium formate	141-53-7	>97

Additional information

No information available

4. FIRST AID MEASURES**Description of first aid measures**

Inhalation	First aid measures not required, but get fresh air for personal comfort.
Skin contact	First aid measures not required, but wash exposed skin with soap and water for hygienic reasons.
Eye contact	First aid measures not required, but rinse opened eye under running water for personal comfort to avoid mechanical irritation.
Ingestion	If a large quantity has been ingested or if you feel unwell, get medical advice/attention.

Most important symptoms and effects, both acute and delayed

None known.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Water with full jet as this can form a dust cloud.

Specific hazards arising from the chemical**Hazardous combustion products**Carbon monoxide (CO). Carbon dioxide (CO₂).**Protective equipment and precautions for firefighters**

No special protective equipment required.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

If dusty conditions wear respiratory protective device with dust filter, gloves and protective clothing for hygienic reasons.

Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so

Small spill	Vacuum or sweep material and place in a disposal container.
Large spill	Cover powder spill with plastic sheet or tarp to minimize spreading. Vacuum or sweep material and place in a disposal container.

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Clean contaminated surface thoroughly. Use personal protective equipment as required. Avoid creating dust.

Reference to other sections

See Section 7, 8, 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protection recommended in Section 8. Avoid generation of dust. Ensure adequate ventilation, especially in confined areas.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Very hygroscopic; protect from moisture.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Particulates not otherwise classified (PNOC)	TWA: 10 mg/m ³ inhalable particles, recommended TWA: 3 mg/m ³ respirable particles, recommended	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction TWA: 15 mppcf respirable fraction TWA: 50 mppcf total dust	Not available

Component	Alberta	British Columbia	Ontario	Quebec
Particulates not otherwise classified (PNOC) RR-00072-6 (0)	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³

Appropriate engineering controls

Eyewash stations. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles)
Hand Protection	Protective gloves not really required. However, we recommend using protective gloves made of rubber. Chloroprene rubber, CR. Nitrile rubber, NBR.
Skin and body protection	Normal work clothes for the chemical industry (long-legged pants and sleeves).
Respiratory protection	Provide suction extractors if dust is formed or use dust filter mask (minimum N95).

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance		
powder crystalline white		
Odor	Mild	
Odor threshold	Not applicable	
Property	Value	Remarks • Method
pH		Not applicable
Melting point / freezing point	258 °C	OECD Test No. 102: Melting Point/ Melting Range
Boiling point / boiling range		Decomposes, ASTM E 537-02
Flash point		Not applicable
Evaporation rate		Not applicable
Flammability (solid, gas)		Not flammable
Explosive limits		
Upper explosive limits		Not applicable
Lower explosive limits		Not applicable
Vapor pressure	1.0 x 10 ⁻⁵ Pa	MPBPWIN v1.43
Vapor density		Not applicable
Relative density		No information available
Water solubility		Soluble in water
Solubility(ies)		No information available
Partition coefficient	< -1.8	No information available OECD Test No. 107: Partition Coefficient (n-octanol/water): Shake Flask Method
Autoignition temperature		No information available
Decomposition temperature	411 °C	ASTM E 537-02
Kinematic viscosity		Not applicable
Dynamic viscosity		Not applicable
Explosive properties	Not explosive.	
Oxidizing properties	Not oxidizing.	
Density	1.91 g/cm ³	ISO 1183-1
Bulk density		No information available

Other Information

No information available

10. STABILITY AND REACTIVITY**Reactivity**

There exists no specific test data for this product. For further information, see the subsequent subsections of this chapter.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

No dangerous reactions known under normal conditions of use.

Conditions to avoid

None known.

Incompatible materials

None known.

Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation. Dermal.

Symptoms related to the physical, chemical and toxicological characteristics

None known.

Numerical measures of toxicity

Unknown Acute Toxicity Not applicable.

Acute toxicity

May be harmful if swallowed.

Sodium formate (141-53-7)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 420: Acute Oral Toxicity - Fixed Dose Procedure	Rat	Oral	3000	LD50 (lethal dose) mg/kg
OECD Test No. 402: Acute Dermal Toxicity	Rat	Dermal	>2000	LD50 (lethal dose) mg/kg
EPA OTS 798.1150	Rat	Inhalation	>0.67	LC0 mg/m ³ The maximal attainable dust concentration of 0.67 mg/l produced no signs of toxicity.

Skin corrosion/irritation

Non-irritating to the skin.

Sodium formate (141-53-7)			
Method	Species	Exposure route	Results:
OECD Test No. 404: Acute Dermal Irritation/Corrosion	rabbit	Dermal	Non-irritant

Serious eye damage/eye irritation

Non-irritant.

Sodium formate (141-53-7)			
Method	Species	Exposure route	Results:
OECD Test No. 405: Acute Eye Irritation/Corrosion	rabbit	Eye	Non-irritant No classification according to GHS criteria.

Respiratory or skin sensitization

No sensitising effects known.

Sodium formate (141-53-7)			
Method	Species	Exposure route	Results:
OECD Test No. 406: Skin Sensitization	Guinea pig	Skin	Not a skin sensitizer read-across from supporting substance (structural analogue)

Germ cell mutagenicity

Not mutagenic.

Sodium formate (141-53-7)		
Method	Species	Results:
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro	Negative
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test	in vitro	Negative read-across from supporting substance (structural analogue)
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	in vitro	Negative read-across from supporting substance (structural analogue)
OECD Test No. 477: Genetic Toxicology: Sex-Linked Recessive Lethal Test in <i>Drosophila melanogaster</i>	in vivo	Negative

Carcinogenicity

Sodium formate (141-53-7)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat	Oral	2000	NOAEL mg/kg bw/day No carcinogenic effects have been observed. read-across from supporting substance (structural analogue)

Reproductive toxicity

This product does not contain any known or suspected reproductive hazards.

Sodium formate (141-53-7)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 414: Prenatal Development Toxicity Study	Rat	Oral	1000	NOAEL mg/kg bw/day No embryotoxic or teratogenic effects have been observed.
OECD Test No. 416: Two-Generation Reproduction Toxicity	rabbit	Oral	1000	NOAEL mg/kg bw/day No impairment of fertility has been observed. No embryotoxic or teratogenic effects have been observed.

STOT - single exposure No known effect.

STOT - repeated exposure

Sodium formate (141-53-7)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 408: Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	Oral	3138	NOAEL mg/kg bw/day read-across from supporting substance (structural analogue)

Aspiration hazard

Not applicable.

12. ECOLOGICAL INFORMATION**Toxicity**

Low toxicity to aquatic organisms.

Sodium formate (141-53-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Remarks
EPA OTS 797.1400	Oncorhynchus mykiss (rainbow trout)	Freshwater	>1000	96h	LC50 (lethal concentration) mg/l
EPA-660/3-75-009	Daphnia magna	Freshwater	>1000	48h	EC50 (effective concentration) mg/l
OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriell a subcapitata	Freshwater	>1000	72h	EC50 (effective concentration) mg/l read-across from supporting substance (structural analogue)

Persistence and degradability

Readily biodegradable.

Sodium formate (141-53-7)			
Method	Value	Exposure time	Results:
OECD Test No. 306: Biodegradability in Seawater	86%	28d	Readily biodegradable
DIN EN 1899 BOD	3940	5d	mgO2/kg

Bioaccumulative potential

Not potentially bioaccumulable.

Chemical Name	Partition coefficient	Bioconcentration factor (BCF)
Sodium formate	-1.8	

Mobility in soil

The substance is not expected to adsorb to a high degree to suspended solids and sediment based upon the log Pow.

Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS**Disposal methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Incinerate at a licensed installation.

Contaminated packaging

Thoroughly emptied and clean packaging may be recycled.

14. TRANSPORT INFORMATION

TDG Road transport	Not regulated
RID Rail transport	Not regulated
IMDG Sea transport	Not regulated
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available
IATA Air transport	Not regulated

15. REGULATORY INFORMATION**International Regulations**

Not applicable.

National regulations**Canada**

See section 8 for national exposure control parameters.

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet**

Not applicable

Issue Date 10-Dec-2018**Revision Date** 07-Dec-2018**Revision Note** SDS sections updated; 1**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 Safety Data Sheet