



Safety Data Sheet
according to Globally Harmonized System (GHS)

Printing date 18.05.2018

Revision: 18.05.2018

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

- **Product identifier**
- **Trade name:** Sodium Formate
- **Synonyms:** Formic Acid Sodium Salt ; Salachlor
- **CAS Number:**
141-53-7
- **Relevant identified uses of the substance or mixture and uses advised against :**
- **Identified/Recommended uses:**
Chemical for synthesis
Raw Material for:
Bleaching agent
Intermediate for synthesis of colouring agents
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Chang Chun Petrochemical Co. Ltd.
7th Fl., No. 301, SongJiang Rd.
Taipei City, 10483, TAIWAN
Tel: +886-2-2500-1800 Fax: +886-2-2501-8018
WWW.CCP.COM.TW
- **Further information obtainable from:** SDS-info@ccp.com.tw
- **Emergency telephone number:** During normal opening times: +886 2 2500 - 1800 (8:30-17:30; GMT+8)

2 Hazards identification

- **Classification of the substance or mixture:**
The substance is not classified as hazardous according to the Globally Harmonised System (GHS).
- **Label elements:**
- **Hazard pictograms:** None (Not Required) - Not Regulated/Not Hazardous
- **Signal word:** None (Not Required) - Not Regulated/Not Hazardous
- **Hazard statements:** None (Not Required) - Not Regulated/Not Hazardous
- **Other hazards:** May form combustible dust concentrations in air.

3 Composition/information on ingredients

- **Chemical characterisation:** **Substances**
- **CAS No. Description**
141-53-7 Sodium Formate ≥98.5%

4 First aid measures

- **Description of first aid measures**
- **General information:** Personal protection for the First Aider.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Generally the product does not irritate the skin.
Rinse cautiously with water for several minutes.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for 15 minutes under running water. If symptom persists consult a doctor.

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- **After swallowing:**
Rinse mouth thoroughly with water.
Drink 1 or 2 glasses of water.
Do not induce vomiting unless directed to do so by medical personnel.
- **Most important symptoms and effects, both acute and delayed:**
No known chronic or acute health risks.
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eye, skin, nose, and throat.
- **Indication of any immediate medical attention and special treatment needed**
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Sodium oxides
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
If possible, stop flow of product.
Ensure adequate ventilation
Avoid formation of dust.
Do not breathe dust/fume/gas/mist/vapours/spray.
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up and arrange disposal without creating dust.
Vacuum or sweep up material and place in a designated, labeled waste container.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Use personal protective equipment as required.
Wear protective gloves/protective clothing/eye protection/face protection.

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- Ensure good ventilation/exhaustion at the workplace.
- Use local exhaust ventilation if dust and aerosol are formed during handling.
- Any unavoidable deposit of dust must be regularly removed.
- **Information about fire - and explosion protection:**
 - Normal measures for preventive fire protection.
 - Dust can combine with air to form an explosive mixture.
 - If fine dust will be generated during processing:
 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store in cool, dry place in tightly closed receptacles.
- **Further information about storage conditions:**
 - Protect from heat and direct sunlight.
 - This product has strong hygroscopicity.
 - Store under inert gas.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**
 - Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.
 - If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
 - Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - The usual precautionary measures are to be adhered to when handling chemicals.
 - Keep away from foodstuffs, beverages and feed.
 - Do not eat, drink, smoke or sniff while working.
 - Avoid contact with the eyes and skin.
 - Wash hands before breaks and at the end of work.
 - Ensure that eyewash stations and safety showers are close to the workstation location.
- **Respiratory protection:**
 - If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
 - Use suitable respiratory protective device in case of insufficient ventilation.
 - Short term filter device:
 - Filter A/P2

- **Protection of hands:**



Protective gloves

The selected protective gloves have to satisfy the specifications of standard EN 374 or its equivalent. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Nitrile rubber, NBR
Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

· **Body protection:**

Protective work clothing
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Crystalline powder

Colour: White

· **Odour:** Odorless to slight formic acid odor

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/freezing point: 253 °C

Initial boiling point and boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1.8 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

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- **Solubility in / Miscibility with water at 20 °C:** 550 g/l
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - Organic solvents:** 0.0 %
 - Water:** <0.5 %
 - VOC (EC)** 0,00 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity:** When properly handled and stored, no dangerous reaction is known.
- **Chemical stability:** Sensitive to moisture.
This product is stable under prescribed use and storage.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide (CO) and carbon dioxide (CO₂)
Sodium oxides
Decomposition products depend upon temperature, air supply and the presence of other materials.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity** Not classified based on available data.

LD/LC50 values relevant for classification:

141-53-7 sodium formate

Oral	LD50	11200 mg/kg (mouse)
Dermal	LD50	7410 mg/kg (rat) (OECD 401)

- **Skin corrosion/irritation:** Not classified based on available data.
Rabbit: not irritating (OECD Test Guideline 404)
- **Serious eye damage/eye irritation:** Not classified based on available data.
Mild eye irritation
Conjunctival redness score: 1.89
Symptoms is fully reversible within <7 days.
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eye, skin, nose, and throat.
- **Respiratory or skin sensitization:** Not classified based on available data.
Mice (Local Lymph Node Assay): Not sensitizing to the skin (OECD Test Guideline 406)

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Information based on a structurally similar material.

Respiratory Sensitisation:

Not classified due to lack of data.

· **Germ Cell Mutagenicity:**

Not classified based on available data.

In-vitro genotoxicity (non-mammalian cells): negative (OECD 471)

· **Carcinogenicity:**

Not classified based on available data.

Mouse (oral, long-term exposure): negative (OECD Guideline 453)

· **Reproductive Toxicity:**

Not classified based on available data.

Does not impair fertility. Not a developmental toxicant.

Dosage administered: 1000 mg/Kg

· **Specific Target Organ Toxicity - Single Exposure (STOT SE):** Not classified based on available data.· **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**

Not classified based on available data.

· **Aspiration Hazard:**

Not classified due to lack of data.

Based on physical properties, not likely to be an aspiration hazard.

· **Primary irritant effect:**· **Skin corrosion/irritation** No irritating effect.· **Serious eye damage/irritation** No irritating effect.· **Respiratory or skin sensitisation** No sensitising effects known.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:**

Not classified based on available data.

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 >100 mg/L in most sensitive species).

NOEC (fish, 96hr): >1000 mg/L (OECD N/A; EPA OTS 797.1400)

EC50 (Daphnia Magna, 48hr): 120 mg/L (OECD N/A; USA EPA TG)

ErC50 (alga, 48hr): >1000 mg/L (OECD N/A; US EPA-600/9-78-018)

EC50 (activated sludge, 28d): ≥ 22.1 mg/L (OECD 306)

· **Persistence and degradability**

Easily biodegradable

Degradation : 86% (28d, OECD 306)

· **Bioaccumulative potential**

Bioaccumulation is not expected.

Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow) : -1.8

· **Mobility in soil** Henry's Law Constant (H) : 0.019 Pa m³/mol @ 25°C· **Additional ecological information:**· **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Any disposal method should also comply with national, regional, provincial, and local laws.

- **Uncleaned packaging:**

- **Recommendation:**

Packaging may be reused or recycled after cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Disposal must be made according to official regulations.

14 Transport information

- **Dangerous Goods classification Status:** Not classified as a dangerous good with respect to transport regulations (IMDG, IATA, ADN, ADR, US DOT).

- **UN-Number**

- **ADR, ADN, IMDG, IATA**

None (Not a Dangerous Good)

- **UN proper shipping name**

- **ADR, ADN, IMDG, IATA**

None (Not a Dangerous Good)

- **Transport hazard class(es)**

- **ADR, ADN, IMDG, IATA**

- **Class**

None (Not a Dangerous Good)

- **Packing group**

- **ADR, IMDG, IATA**

None (Not a Dangerous Good)

- **Environmental hazards:**

- **Marine pollutant:**

No

- **Special precautions for user**

Not applicable.

- **UN "Model Regulation":**

None (Not a Dangerous Good)

15 Regulatory information

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

- **Status of global inventories:**

All component(s) within this product is listed or exempted from the following country's chemical inventory:

USA – TSCA

Australia – AICS

Canada – DSL

China – IECSC

EU – EINECS/NLP

Japan – ENCS

Korea – KECI

New Zealand – NZIoC

Philippines – PICCS

Taiwan – TCSI

Mexico - INSQ

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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
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16 Other information

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- **Sources**

Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

<https://echa.europa.eu/registration-dossier/-/registered-dossier/14849/>

- **General Disclaimers:**

CCP Group recommends that all the users/customers/recipients to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty, expressed or implied, is given. It is the customer's/user's responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer's/user's responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond CCP Group's control. CCP Group will not be responsible for any SDS obtained from elsewhere other than from CCP Group. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.

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