

Material Safety Data Sheet

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Version 1.4

According to 91/155/EEC

1 - Product and Company Information

Product Name	SODIUM FORMATE, 99.998%
Product Number	456020
Company	Sigma-Aldrich Pty, Ltd Unit 2, 14 Anella Avenue Castle Hill NSW 1765 Australia
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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
SODIUM FORMATE	141-53-7	205-488-0	None
Formula	CHO ₂ Na		
Molecular Weight	68.01 AMU		
Synonyms	Mravencan sodny (Czech) * Salachlor * Sodium formate		

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Not hazardous according to Directive 67/548/EC.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Moisture sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Wear dust mask.

Hand Protection: Protective gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance

Physical State: Solid

Color: Colorless

Form: Fine crystals

Property

Value

At Temperature or Pressure

pH

7 - 8.5

BP/BP Range

N/A

MP/MP Range

261 °C

Flash Point

N/A

Flammability

N/A

Autoignition Temp

N/A

Oxidizing Properties

N/A

Explosive Properties

N/A

Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	1.92 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	2.35 g/l	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	1 - 1.05 kg/l	20 °C
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: 1 M in H ₂ O, 20°C complete, colorless	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Strong oxidizing agents, Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sodium/sodium oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: LR0350000

ACUTE TOXICITY

LD50

Oral

Mouse

11,200 mg/kg

LD50

Intravenous

Mouse

807 mg/kg

LD50

Intrauterine

Mouse

2,500 mg/kg

LDLO

Oral

Dog

4,000 mg/kg

LDLO

Intravenous

Dog

3,000 mg/kg

LDLO

Subcutaneous

Cat

1,140 mg/kg

LDLO

Intravenous
Rabbit
1,250 mg/kg
LD50
Inhalation
Rat
670 mg/m3
4 H

LD50
Oral
Mouse
11200 mg/kg

LD50
Intravenous
Mouse
807 MG/KG

IRRITATION DATA

Skin
Rabbit
Remarks: Mild irritation effect
Eyes
Rabbit
Remarks: Moderate irritation effect
Drinking
Rat
1 %
1.5 YEARS
Remarks: No irritation effect
Eyes
Rabbit
Remarks: No irritation effect
Skin
Rabbit
Remarks: No irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

Other symptoms may include rash and itching. Eye contact may result in irritation or eye burns. Prolonged or repeated exposure to skin may cause irritation. Coughing, chest pains, difficulty in breathing. Asthmatic symptoms: cough, hoarseness, rhinorrhea, wheezing, and conjunctivitis. Nausea, vomiting, diarrhea.

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

12 - Ecological Information

ELIMINATION

Elimination: 92 %

ECOTOXICOLOGICAL EFFECTS

Test Type: EC0 Daphnia

Species: Daphnia magna
Time: 24 h
Value: > 1,000 mg/l

Test Type: LC50 Fish
Species: Lepomis macrochirus (Bluegill)
Time: 24 h
Value: 5,000 mg/l

Test Type: LC50 Fish
Species: Leuciscus idus
Time: 48 h
Value: > 1,000 mg/l

Test Type: LC50 Fish
Species: Pimephales promelas (Fathead minnow)
Time: 96 h
Value: > 954 mg/l

Test Type: LC50 Fish
Species: Onchorhynchus mykiss (Rainbow trout)
Time: 96 h
Value: > 887 mg/l

Test Type: EC50 Daphnia
Species: Daphnia magna
Time: 48 h
Value: 1,070 mg/l

Test Type: EC50 Algae
Species: Selenastrum capricornutum resp.
Time: 96 h
Value: 790 mg/l

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

Not hazardous according to Directive 67/548/EC.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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