

1. IDENTIFICATION

Product Name Sodium Formate
Other Names No Data Available

Uses For dyeing, printing fabrics, leather tanning and chrome electroplating process; as an antioxidant in paper industry; for

manufacturing Formic acid, Oxalic acid, Sodium hydrosulphite and metal formates.

Chemical Family No Data Available

Chemical Formula CHNaO2

 Chemical Name
 Formic acid, sodium salt

 Product Description
 No Data Available

Contact Details of the Supplier of this Safety Data Sheet

OrganisationLocationTelephoneRedox Ltd2 Swettenham Road
Minto NSW 2566+61-2-97333000

Australia

Wiri Auckland 2104
New Zealand

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USA

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40400 Shah Alam Sengalor, Malaysia

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation Location Telephone Poisons Information Centre Westmead NSW 1800-251525 131126 Chemcall Australia 1800-127406 +64-4-9179888 Chemcall Malaysia +64-4-9179888 Chemcall New Zealand 0800-243622

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National Poisons Centre New Zealand 0800-764766

CHEMTREC USA & Canada 1-800-424-9300 CN723420

+1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not Scheduled

Redox Ltd
Corporate Office Sydney
Locked Bag 15 Minto NSW 2566 Australia
2 Swettenham Road Minto NSW 2566 Australia
All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Kuala Lumpur
USA
Los Angeles
Oakland
Mexico
Saltillo



Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Irritation - Category 2B

Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms



Signal Word Warning

Response

Hazard Statements H315 + H320 Causes skin and eye irritation.

H335 May cause respiratory irritation.

Precautionary Statements Prevention P280 Wear protective gloves.

P261 Avoid breathing dusts or mists.

P271 Use only outdoors or in a well-ventilated area.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER or doctor if you feel unwell.

Storage P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal P501 Dispose of contents/container in accordance with local / regional / national /

international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium formate	CHNaO2	141-53-7	95 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting unless directed to do so by medical

personnel. Get medical advice/attention. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye

irritation persists, get medical advice/attention.

Skin IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation

occurs, get medical advice/attention.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms

persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is

Fire may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Sodium oxides. Under certain

difficult.

Advice to Doctor Treat symptomatically.

Medical Conditions Aggravated by No information available.

Exposure

5. FIRE FIGHTING MEASURES

General Measures If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

Flammability Conditions Combustible solid; May burn but does not ignite readily.

Extinguishing MediaUse dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Do not use water jets.

Fire and Explosion Hazard Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

Hazardous Products of

Combustion

fire conditions, traces of other toxic gases cannot be excluded.

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may cause pollution.

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

Flash Point
No Data Available
Lower Explosion Limit
No Data Available
Upper Explosion Limit
No Data Available
Auto Ignition Temperature
No Data Available
Hazchem Code
No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid

generating dust. Avoid breathing dust and contact with eyes, skin and clothing.

Clean Up Procedures Sweep up and shovel into suitable containers for disposal (see SECTION 13).

*Use non-sparking tools.

Containment Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined

areas

Environmental Precautionary

Measures

Decontamination

Wash away remainder with plenty of water. Prevent entry into drains and waterways.

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Personal Precautionary Measures Use personal protective equipment as required (see SECTION 8).

Evacuation Criteria Spill or leak area should be isolated immediately. Keep unauthorised personnel away.

7. HANDLING AND STORAGE

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). WARNING: May form combustible dust concentrations in air! Keep away from heat and all sources of ignition - No smoking. Take precautionary measures against static discharge. Ground/bond

container and receiving equipment.

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect from

water/moisture (hygroscopic). Keep away from heat and all sources of ignition - No smoking. Keep away from

food/feedstuffs and incompatible materials (see SECTION 10).

Container Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General There are no specific exposure standards for this chemical. For dusts from solid substances without specific occupational

exposure standards:

- Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m3, measured as inhalable dust.

- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m3; TWA = 3 mg/m3 (respirable).

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment - Respiratory protection: Wear respiratory protection in case of inadequate ventilation and with high concentrations.

Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or goggles

and full face shield, where dusting or splashing of solutions is possible. $\label{eq:splashing}$

- Hand protection: Handle with gloves. Recommended: Impervious gloves, e.g. Nitrile rubber.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls,

protective shoes or boots.

Special Hazards Precaustions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid

Appearance Crystalline powder

Odour Pungent

Colour Off-white

7 - 8.5 (5% ag. sol'n) рН **Vapour Pressure** No Data Available **Relative Vapour Density** No Data Available **Boiling Point** 360 °C (Decomposes)

Melting Point 258 - 261 °C No Data Available **Freezing Point**

Solubility Soluble in water (550 g/L) 20°C

Specific Gravity 1.92

Flash Point No Data Available **Auto Ignition Temp** No Data Available **Evaporation Rate** No Data Available **Bulk Density** No Data Available **Corrosion Rate** No Data Available

Decomposition Temperature 350°C

Density No Data Available **Specific Heat** No Data Available **Molecular Weight** 68.01 g/mol **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available **Vapour Temperature** No Data Available **Viscosity** No Data Available

Additional Characteristics Hygroscopic material - Readily absorbs moisture from atmosphere.

Potential for Dust Explosion Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

Fast or Intensely Burning

Characteristics

Volatile Percent

VOC Volume

No information available.

No Data Available

No Data Available

Flame Propagation or Burning

Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a

Fire

Properties That May Initiate or Contribute to Fire Intensity

No information available.

Reactions That Release Gases or

Vapours

Combustible solid; May burn but does not ignite readily.

Fire/decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Sodium

oxides. Under certain fire conditions, traces of other toxic gases cannot be excluded.

Release of Invisible Flammable

Vapours and Gases

No information available.

10. STABILITY AND REACTIVITY

General Information Solutions are strong alkali. **Chemical Stability** Stable under normal conditions.

Conditions to Avoid Avoid generating dust. Keep away from heat and sources of ignition. Take precautionary measures against static

discharges. Avoid moisture.

Materials to Avoid Incompatible/reactive with strong oxidising agents, strong acids.

Hazardous Decomposition

Products

Fire/decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Sodium

oxides. Under certain fire conditions, traces of other toxic gases cannot be excluded.

Hazardous Polymerisation Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Sodium formate exhibits low acute toxicity by all routes in animal tests.
- Skin corrosion/irritation: Causes skin irritation.
- Eye damage/irritation: Causes eye irritation.
- Respiratory/skin sensitisation: Not sensitising to skin (Buehler) [Analogue: Formic acid].
- Germ cell mutagenicity: Sodium formate is not considered to be genotoxic [NICNAS].
- Carcinogenicity: No carcinogenicity tests on sodium formate are available. No evidence of increased carcinogenicity was observed with the analogue potassium hydrogen diformate [NICNAS].
- Reproductive toxicity. There is no indication for the developmental or reproductive potential of sodium formate from the available in vivo studies [ECHA].
- STOT (single exposure): May cause respiratory irritation.
- STOT (repeated exposure): Based on data for the read-across substance (analogue) potassium diformate, it can be concluded that sodium diformate is of low toxicity following repeated dosing [ECHA].
- Aspiration toxicity: Not applicable.

Information on likely routes of exposure:

- Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause adverse kidney effects.
- Eye contact: Causes irritation, redness and pain.
- Skin contact: Causes irritation to skin. Symptoms include redness, itching and pain.
- Inhalation: Inhalation of dust can irritate the respiratory tract with symptoms of sore throat, coughing and shortness of

reath.

Chronic effects: No information available.

Acute

Ingestion Acute toxicity (Oral):

LD50, Rat: >3,000 mg/kg [NICNAS].LD50, Mouse: 11,200 mg/kg [NICNAS].

Other Acute toxicity (Dermal):

- LD50, Rat: >2,000 mg/kg [NICNAS]. *No adverse effects observed.

Inhalation Acute toxicity (Inhalation):

- LC50, Rat: >0.67 mg/L (maximum obtainable concentration, aerosolised) [NICNAS].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity Aquatic toxicity:

- LC50, Fish (Pimephales promelas & Oncorhynchus mykiss): >1,000 mg/L (96 h) [ECHA].

- EC50, Crustacea (Daphnia magna): >1,000 mg/L (48 h) [ECHA].

Persistence/Degradability Sodium formate is readily biodegradable.

Mobility No information available.

Environmental Fate Prevent entry into drains and waterways.

Bioaccumulation Potential Significant accumulation of sodium formate in organisms is not expected.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can

be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name Sodium Formate

Class No Data Available

Subsidiary Risk(s) No Data Available

No Data Available

UN NumberNo Data AvailableHazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
No Data Available
No Data Available

UN NumberNo Data AvailableHazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
No Data Available
UN Number
No Data Available
Hazchem
No Data Available

Pack GroupNo Data AvailableSpecial ProvisionNo Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name

Class

No Data Available
Subsidiary Risk(s)

No Data Available
No Data Available

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name Sodium Formate Class No Data Available Subsidiary Risk(s) No Data Available **UN Number** No Data Available Hazchem No Data Available **Pack Group** No Data Available **Special Provision** No Data Available **EMS** No Data Available

Marine Pollutant No

Comments NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
UN Number
No Data Available
Hazchem
No Data Available
Pack Group
No Data Available
Special Provision
No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods ClassificationNOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) 205-488-0

Europe (REACh) Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

16. OTHER INFORMATION

Related Product Codes

SOFORM1000, SOFORM1002, SOFORM1004, SOFORM1005, SOFORM1006, SOFORM1007, SOFORM1008, SOFORM1009, SOFORM1010, SOFORM1011, SOFORM1012, SOFORM1013, SOFORM1014, SOFORM1015, SOFORM1016, SOFORM1017, SOFORM1018, SOFORM1019, SOFORM1020, SOFORM1021, SOFORM1022, SOFORM1023, SOFORM1024, SOFORM1025, SOFORM1026, SOFORM1027, SOFORM1028, SOFORM1029, SOFORM1030, SOFORM1031, SOFORM1032, SOFORM1033, SOFORM1034, SOFORM1035, SOFORM1036, SOFORM1040, SOFORM1041, SOFORM1049, SOFORM1500, SOFORM1501, SOFORM1700, SOFORM1800, SOFORM1900, SOFORM2000, SOFORM2001, SOFORM2100, SOFORM2200, SOFORM2300, SOFORM2400, SOFORM2500, SOFORM2600, SOFORM2700, SOFORM2800, SOFORM2900, SOFORM3001, SOFORM3002, SOFORM3003, SOFORM3004, SOFORM3005, SOFORM3006, SOFORM3007, SOFORM3008, SOFORM3009, SOFORM3010, SOFORM3011, SOFORM3012, SOFORM3013, SOFORM3014, SOFORM3015, SOFORM3100, SOFORM3401, SOFORM3410, SOFORM3415, SOFORM3420, SOFORM3450, SOFORM3460, SOFORM3461, SOFORM3500, SOFORM3800, SOFORM3900, SOFORM4000, SOFORM4001, SOFORM4200, SOFORM4300, SOFORM4501, SOFORM3501, SOFORM5500, SOFORM5500, SOFORM5600, SOFORM6500, SOFORM5001, SOFORM5500, SOFORM8800, SOFORM6900, SOFORM9000, SOFORM9001, SOFORM9001, SOFORM9000, SOFORM

Revision 4

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 Carbon Dioxide

COD Chemical Oxygen Demand **deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm3 Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury
inH2O Inch of Water

K Kelvin **kg** Kilogram

kg/m³ Kilograms per Cubic Metre

Ib Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre m³ Cubic Metre mbar Millibar mg Milligram

mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion
ppm Parts per Million

ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

 ${\bf R}$ Rankine

RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average **ug/24H** Micrograms per 24 Hours

UN United Nations

wt Weight