POCD SCIENTIFIC

MATERIAL SAFETY DATA SHEET

Section 1: IDENTIFICATION

FORMIC ACID

Synonyms – Aminic Acid, Formic Acid 90%, Hydrogen Carboxylic Acid, Methanoic Acid.

Product Code – FORMIC2.5.

Recommended use – Laboratory reagent.

Point of Care Diagnostics t/a POCD Scientific
ABN: 93 067 939 824
Unit 14/76 Reserve Rd
Artarmon NSW 2064
☎ 1800 640 075 | ☏ 02 9437 1399

Australian Emergency Services: 000 (24 hours) Australian Poisons Information Centre: 131 126 (24 hours)

Section 2: HAZARDS IDENTIFICATION

Classified as a Hazardous substance according to criteria of NOHSC.
Classified as a Dangerous good according to the ADG Code for the Transport of Dangerous Goods by Road and Rail.

R Phrases
R35 – Causes severe burns.

S Phrases
S1/2 – Keep locked up and out of reach of children.
S23 - Do not breathe vapour/spray.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell seek medical advice immediately.

Section 3: COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>&gt;85%</td>
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</tbody>
</table>

Section 4: FIRST AID MEASURES

Eye contact
Flush eyes with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

Skin contact
Remove contaminated clothing and wash affected area with soap and water thoroughly. Seek medical attention immediately.

Inhalation
Remove patient to fresh air. If breathing stops, apply artificial respiration and seek medical attention immediately.

Ingestion
DO NOT induce vomiting. Wash mouth out with copious amounts of water. Seek medical attention immediately.

First aid facilities
Eye wash station, safety shower and First Aid kit.
Advice to Doctor

Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

Suitable extinguishing media
Carbon Dioxide, dry chemical, water spray or foam.

Hazards for combustion products
Toxic gases may evolve.

Special protective precautions and equipment for fire fighters
Wear SCBA (Self-Contained Breathing Apparatus) and full protective equipment. Combustible liquid. Vapours may 'travel' and cause flashback.

Hazchem code
2X

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency procedures
Evacuate all personnel not involved in clean up. Wear appropriate protective equipment and ensure area is adequately ventilated. Do not contaminate drains and waterways.

Clean up methods
Absorb with vermiculite or similar inert material and place in suitably labelled containers for later disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling
This is a corrosive liquid and can be harmful to skin and eyes and cause burns. Wear appropriate personal protective equipment and only use in a well-ventilated area. Avoid exposure to vapour and keep containers tightly closed when not in use. Practice good personal hygiene.

Conditions of safe storage
Store in a cool, dry, well-ventilated area removed from oxidising agents, acids, alkalis, direct sunlight, heat or ignition sources and foodstuffs.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National exposure standards
Formic Acid: [TWA]: 5ppm, 9.4mg/m$^3$  
[STEL]: 10ppm, 19mg/m$^3$

Biological Limit Values
Not available for this product.

Engineering Controls
Adequate ventilation is required, concentrations must be maintained below exposure standards.

Personal Protective Equipment
Safety glasses or chemical goggles, gloves and protective clothing.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Colourless liquid

Odour
Pungent odour

pH
Acidic

Vapour pressure
35mmHg @ 20°C

Vapour density
1.6

Boiling point
101°C

Melting point
8.4°C

Solubility
Miscible

Specific gravity or density
1.22

Information for flammable materials
Flash Point: 69°C

Upper and lower flammable limits in air
18-57% (90% solution)

Auto-ignition temperature
539°C

Section 10: STABILITY AND REACTIVITY

Chemical stability
Stable under recommended conditions for use and storage.

Conditions to avoid
Sources of ignition and incompatibles.

Incompatible materials
Oxidisers, alkalis, metals, air and water.

Hazardous decomposition products
Toxic gases may evolve.

Hazardous reactions
Polymerisation will not occur.
Section 11: TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute:
- Eye contact: Will result in redness, stinging, lacrimation and severe burns and pain and possible corneal damage.
- Skin contact: May cause severe burns and damage to the skin and dermatitis.
- Inhalation: Can result in irritation to the mucous membranes of the respiratory tract.
- Ingestion: May result in nausea, abdominal pain, vomiting as well as severe burns to the mouth, throat and stomach.

Chronic: May cause respiratory disorders.

TOXICITY DATA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD₅₀ (mg/kg)</th>
<th>RTECS Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>Oral, Rat: 1210mg/kg</td>
<td></td>
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Section 12: ECOLOGICAL INFORMATION

- Ecotoxicity: Not available.
- Persistence and degradability: Not available.
- Mobility: Not available.
- Environmental fate (exposure): Do not contaminate drains and waterways.
- Bioaccumulative potential: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal methods and containers: Dispose of product and empty containers in accordance with local authority guidelines.

Special precautions: Avoid exposure.

Section 14: TRANSPORT INFORMATION

Classified as dangerous goods by the criteria of the Australian Dangerous Goods Code.

- UN Number: 1779
- UN Proper shipping name: Formic Acid
- Class and subsidiary risk: Class 8, Sub Risk 3
- Packing group: II
- Special precautions: Do not transport with loads of:
  - Class 1 – Explosives
  - Class 4.3 - Dangerous When Wet
  - Class 5.1 - Oxidising agents
  - Class 5.2 - Organic peroxides
  - Class 6 - Toxics - where the Toxic is a cyanide and the Corrosive is an acid
  - Class 7 – Radioactives
  - Class 8 - where products are acid/alkali and foodstuffs.
- Hazchem code: 2X

Section 15: REGULATORY INFORMATION

- TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
- STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.
- Poison Schedule: S5.
Section 16: OTHER INFORMATION

Release Information

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Issue Number 1

References


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