

SAFETY DATA SHEET

FORMIC ACID 90% AR

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation:

Catalogue no. : KA1063

Product name : Formic acid 90% AR

1.2 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

Elago Enterprises Pty Ltd, 5 The Cloisters, Cherrybrook, N.S.W. 2126, Australia

Tel no. (61) 2 98998169

Fax no. (61) 2 98997976

1.4 Emergency telephone:

(61) 2 98998169 (9:00am - 5:00 pm) [Office hours]

2. Identification of dangers

2.1 Classification of the substance.

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Skin Corrosive, Category 1A : Causes severe skin burns and eye damage.

Acute toxicity, Oral, Category 4: Harmful if swallowed.

Acute toxicity, Inhalation, Category 3: Toxic if inhaled.

2.2 Label elements.

Hazard pictograms



Signal words : Danger.

EU Hazard statements (EUH):

EUH071 : Corrosive to the respiratory tract.

Hazard statements (H) :

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H331 : Toxic if inhaled.

Precautionary statements (P) :

P280 : Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P310 : IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

2.3 Other hazards.

None known.

3. Composition/information on ingredients

Chemical nature: Mixture of organic compounds.

3.1 Substance / Preparation.

Not applicable.

3.2 Mixture.

Formic acid

Formular: HCOOH

CAS No : 64-18-6

Molecular weight : 46.03

Content: >= 89.0 % <= 92.0 %

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Flammable liquid, Category 3: Flammable liquid and vapour.

Skin Corrosive, Category 1A : Causes severe skin burns and eye damage.

Acute toxicity, Oral, Category 4: Harmful if swallowed.

Acute toxicity, Inhalation, Category 3: Toxic if inhaled.

Hazard pictograms



Signal words : Danger.

EU Hazard statements (EUH):

EUH071 : Corrosive to the respiratory tract.

Hazard statements (H) :

H226 : Flammable liquid and vapour.

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H331 : Toxic if inhaled.

Precautionary statements (P) :

P210 : Keep away from heat.

P280 : Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P310 : IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

Contains no other components or impurities which will influence the classification of the product.

4. First-aid measures

4.1 Description of first aid measures.

Inhaling: Take the person out into the fresh air. If unconscious, place them in a suitable position and seek medical assistance.

Skin contact: Wash with plenty of water. Remove contaminated clothing.

Eyes: Wash with plenty of water, keeping eyelids open and seek medical assistance.

Ingestion: Never induce vomiting. Seek immediate medical assistance.

4.2 Most important symptoms and effects, both acute and delayed.

Corrosive and Toxic Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

4.3 Indication of any immediate medical attention and special treatment needed.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

5. Fire-fighting measures

5.1 Suitable extinguishing media.

Recommended extinguishing methods: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2 Special hazards arising from the substance.

Special risks: Under fire conditions, toxic fumes (carbon oxides) may present.

5.3 Advice for firefighters.

Do not enter fire area without proper protective equipment, including respiratory protection.

Fire protection equipment: According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Store away from other materials. Collect spillage.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

7. Handling and storage

7.1 Precautions for safe handling.

The product does not require special handling measures. Ensure good ventilation and renewal of the air in the premises.
Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities.

The product does not require special storage measures. Well sealed containers. Away from sources of ignition and heat.

7.3 Specific end use(s).

None.

8. Exposure controls/personal protection

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values.
The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Personal protection : Avoid all unnecessary exposure.
Respiratory protection : Wear approved mask.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Others : When using, do not eat, drink or smoke.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties.

Appearance:	Liquid.
Colour:	Clear, colourless or almost colourless liquid.
Odour:	Pungent odour.
Odour threshold:	No data available.
pH value:	2.2 (1%, 20°C)
Melting Point:	-9 °C
Boiling Point:	107 °C
Flash point:	71 °C
Flammability (solid, gas) :	No data available.
Evaporation rate :	No data available.
Vapour pressure:	No data available.
Vapour density :	No data available.
Lower Explosive Limit:	10% (V)
Upper Explosive Limit:	45.5% (V)
Solubility:	No data available.
Density:	No data available.
Relative density:	1.2 g/cm ³
Partition coefficient (n-octanol/water):	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other information.

None.

10. Stability and reactivity

10.1 Reactivity.

If the storage conditions are satisfied, does not produce dangerous reactions.

10.2 Chemical stability.

Unstable in contact with bases, Sensitivity to light.

10.3 Possibility of hazardous reactions.

Neutralization can occur on contact with bases.

10.4 Conditions to avoid.

Avoid contact with bases, strong heating and direct sunlight.

10.5 Incompatible materials.

Keep away from oxidizing materials, bases and metals.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated corrosive vapors or gases.

11. Toxicological information

11.1 Information on toxicological effects.

Mixture

Acute toxicity.	LD50 oral rat : 811.11 mg/kg LD50 inhalation rat : 8.22 mg/l (4 h)
Inhalation:	Toxic if inhaled.
Dermal:	Based on available data, the classification criteria are not met.
Ingestion:	Harmful if swallowed.
Corrosion:	Causes severe skin burns and eye damage.
Irritation:	Based on available data, the classification criteria are not met.
Sensitization:	Based on available data, the classification criteria are not met.
Mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Toxic for reproduction:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

12. Ecological information

Mixture

12.1 Toxicity.

Not established.

12.2 Persistence and Degradability.

Biodegradable.

12.3 Bioaccumulative potential.

Not established.

12.4 Mobility in soil

Not established.

12.5 Results of PBT and vPvB assessment.

The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

13. Disposal considerations

13.1 Waste treatment methods.

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

14.1 UN number.

UN 1779

14.2 UN proper shipping name.

ADR: UN 1779, FORMIC ACID, 8 (3), PG II, (D/E)

IMDG: UN 1779, FORMIC ACID, 8 (3), PG II

ICAO: UN 1779, FORMIC ACID, 8 (3), PG II

14.3 Transport hazard class(es).

Class(es): 8 (3)

14.4 Packing group.

Packing group: II

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 8, 3

Hazard number: 83

ADR LQ: 1 L

IMDG LQ: 1 L

ICAO LQ: 0.5 L

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-A, S-B

Proceed in accordance with point 6.

IMDG Code segregation group: 1 Acids

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

The product is not transported in bulk.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance.

Ensure all national/local regulations are observed.

The product is not affected by REACH Restrictions - Annex XVII

The product is not affected by REACH Authorisation - Annex XIV

15.2 Chemical safety assessment.

Not Scheduled.

16. Other Information

Abbreviations and acronyms :

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

EC50: Effective concentration, 50%

IC50: Inhibitory Concentration, 50%

LC50: Lethal concentration, 50%.

LD50: Lethal dose, 50%.

Log Pow: Logarithm of the partition octanol-water.

PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative.

Sources of key data used.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Review number and date.

v. 1.0

Date published.

29-Sep-2016

Further information.

None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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