


Material Safety Data Sheet	
FORMIC ACID 98% LR	VERSION : 03 DATE OF ISSUE : 31-01-2022 SUPERSEDES : 02
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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : : FORMIC ACID 98% LR
Product code : : 14571
Identification of the product : Formic acid
CAS No : 64-18-6
Chemical formula : CH₂O₂

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : MOLYCHEM
Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor,
Mumbai – 400 002 (INDIA)
Tel:+91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.
Email : info@molychem.net
Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat
Textile Co.,Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

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

Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Skin corrosion (Sub-category 1A), H314
Serious eye damage (Category 1), H318

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : C : Corrosive




R Phrase(s) :

R35 : Causes severe burns.

S Phrase(s) :

S24 : Avoid contact with skin.

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- S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 : After contact with skin, wash immediately with
- S35 : This material and its container must be disposed of in a safe way.
- 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 (show the label when possible).
- S59 : Refer to manufacturer/supplier for information on recovery/recycling.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words : Danger

Hazard statements :


- H226 : Flammable liquid and vapour.
- H302 : Harmful if swallowed.
- H314 : Causes severe skin burns and eye damage.
- H331 : Toxic if inhaled.

Precautionary statements

Prevention :

- P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
- P280: Wear protective gloves, protective clothing, eye protection, face protection.
- P260: Do not breathe dust, fume, gas, mist, vapours, spray.
- P233: Keep container tightly closed.
- P264: Wash thoroughly after handling.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell
- P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

Supplemental Hazard information (EU)
 EUH071 Corrosive to the respiratory tract.

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2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients

3.1 Substances

Formula : CH_2O_2
 Molecular weight : 46.03 g/mol
 CAS-No. : 64-18-6

4. First aid measures

4.1. Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Pulmonary failure possible after aspiration of vomit. Call a physician immediately. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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


No data available

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact.

Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly.

Clean up affected area.

6.4. Reference to other sections

For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion


Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

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Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

No metal containers. May decompose forming gaseous products, especially when stored over long periods. Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve).

Dry. Protected from light. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Exposure controls

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

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties


9.1. Information on basic physical and chemical properties

- a) Physical state : liquid
- b) Color : colorless
- c) Odor : stinging
- d) Melting point/freezing point : Melting point/range: 8.5°C - lit.
- e) Initial boiling point and boiling range : 100.80°C - lit.
- f) Flammability (solid, gas) : No data available
- g) Upper/lower flammability or : Upper explosion limit: 38 %(V) Lower explosion limit: 18 %(V)


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explosive limits	
h) Flash point	49.5 °C - closed cup
i) Autoignition temperature	528 °C at 1.008 hPa - Tested according to Directive 92/69/EEC.
j) Decomposition temperature	350 °C Method: OECD Test Guideline 113
k) pH	2.2 at 10 g/l at 20 °C
l) Viscosity	Viscosity, kinematic: 1,47 mm ² /s at 20 °C - OECD Test Guideline 114 1141,02 mm ² /s at 40 °C - OECD Test Guideline 114 Viscosity, dynamic: 1,8 mPa.s at 20 °C - OECD Test Guideline 114 1141,22 mPa.s at 40 °C - OECD Test Guideline 114
m) Water solubility	at 20 °C miscible in all proportions, (experimental)
n) Partition coefficient: octanol/water	log Pow: -2,1 at 23 °C - OECD Test Guideline 107 - n-Bioaccumulation is not expected.
o) Vapor pressure	171 hPa at 50 °C - OECD Test Guideline 104
p) Density	1.22 g/cm ³ at 25 °C - lit.
Relative density	1.22 at 20 °C - OECD Test Guideline 109
q) Relative vapor density	1.59 - (Air = 1.0)
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none
9.2. Other information	
Surface tension	71.5 mN/m at 1g/l at 20 °C - OECD Test Guideline 115
Surface tension	71.5 mN/m at 1g/l at 20 °C - OECD Test Guideline 115
Relative vapor density	1.59 - (Air = 1.0)
<u>10. Stability and reactivity</u>	
10.1. Reactivity	
	Vapor/air-mixtures are explosive at intense warming.
10.2. Chemical stability	
	The product is chemically stable under standard ambient conditions (room temperature) .
10.3. Possibility of hazardous reactions	
	Risk of ignition or formation of inflammable gases or vapours with:
	Aluminum
	Risk of explosion with:
	organic nitro compounds
	sodium hypochlorite
	hydrogen peroxide

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furfuryl alcohol
Generates dangerous gases or fumes in contact with:
alkalines

Strong oxidizing agents

sulfuric acid

nonmetallic oxides

metal catalysts

Oxides of phosphorus

Nitric acid

nitrates

Exothermic reaction with:

alkaline earth hydroxides

alkali hydroxides

bases

Amines

10.4. Conditions to avoid

Heating.

10.5. Incompatible materials

Strong oxidizing agents, Strong bases, Powdered metals

10.6. Hazardous decomposition products

In the event of fire: see section 5

11. Toxicological information


11.1. Information on toxicological effects

Acute toxicity (oral) :	Not classified
Acute toxicity (dermal) :	Not classified
Acute toxicity (inhalation) :	Not classified
Skin corrosion/irritation :	Causes severe skin burns. pH: 2.2 (10 g/L aqueous solution)
Serious eye damage/irritation :	Assumed to cause serious eye damage pH: 2.2 (10 g/L aqueous solution)
Respiratory or skin sensitisation :	Not classified
Germ cell mutagenicity :	Not classified
Carcinogenicity :	Not classified
Reproductive toxicity :	Not classified
STOT-single exposure :	Not classified
STOT-repeated exposure :	Not classified
Aspiration hazard :	Not classified
Viscosity, kinematic	1.47 mm ² /s at 20°C

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12. Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence - degradability

No additional information available

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

Does not significantly accumulate in organisms.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.


13. Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.

Additional information : Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container.

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14. Transport information

14.1. UN number

ADR/RID: 1779 IMDG : 1779 IATA: 1779

14.2. UN proper shipping name

ADR/RID : FORMIC ACID
IMDG: FORMIC ACID
IATA: FORMIC ACID

14.3. Transport hazard class(es)

ADR/RID : 8(3) IMDG : 8(3) IATA : 8(3)

14.4. Packaging group

ADR/RID : II IMDG : II IATA : II

14.5 Environmental hazards

ADR/RID : no IMDG : Marine pollutant: no IATA : no

14.6 Special precautions for user

Tunnel restriction code : (D/E)
Further information : No data available

15. Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European : ACUTE TOXIC
Parliament and of the Council on the control of
major-accident hazards involving dangerous substances. : FLAMMABLE LIQUIDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

16. Other information

Abbreviations and acronyms :

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

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and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

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

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