

Material Safety Data Sheet



FORMIC ACID (ABOUT 85%)

VERSION : 02

DATE OF ISSUE : 26-08-2019

SUPERSEDES : 01

Product Code : 14570

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : FORMIC ACID

Product code : 14570

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

Classification EC 67/548 or EC 1999/45

Classification : C; R35

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

Health hazards : Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314

Physical hazards : Flammable liquids - Category 3 - Warning (CLP : Flam. Liq. 3) H226

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.

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.

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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.

H314 : Causes severe skin burns and eye damage.

Precautionary statements

• **Prevention : P240:** Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

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.

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

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.

P363: Wash contaminated clothing before reuse.

P370+P378: In case of fire: Use for extinction.

• **Storage : P403+P235:** Store in well-ventilated place. Keep cool.

P405: Store locked up.

• **Disposal considerations : P501:** Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

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

3. Composition/information on ingredients

Substance / Preparation : Formic acid

CAS No :64-18-6

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Substance.

Hazardous component(s) : This product is hazardous.

Substance name

Contents

CAS No

Formic acid :

Circa 100 %

64-18-6

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

Inhalation : Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor.

Eye contact : Immediately call a POISON CENTER or doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

Ingestion : Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.

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

Symptoms relating to use : Causes severe skin burns and eye damage.

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

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present. Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

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

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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For emergency responders : Equip cleanup crew with proper protection. Ventilate area.

Technical measures : Use special care to avoid static electric charges.

Special precautions : Remove ignition sources. No naked lights. No smoking.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling : Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Avoid contact during pregnancy or while nursing. Do not breathe dust, fume, gas, mist, vapours, spray. Take precautionary measures against static discharge.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment. Use only nonsparking tools.

Special precautions : No naked lights. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

• **Respiratory protection :** Wear approved mask.

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- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **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

Odour threshold : No data available.

Melting point [°C] : 8.2 - 8.4 °C

Decomposition point [°C] : N/A

Flammability (solid, gas) : N/A

Flammable liquid and vapour.

Boiling point [°C] : 100 - 101 °C

Evaporation rate : N/A

Vapour pressure mm/Hg : N/A

Vapour density : 1,59

Density [g/cm³] : 1,22

Relative density, gas (air=1) : N/A

Relative density, liquid (water=1) : N/A

Solubility in water [% weight] : Infinitely soluble

Log Pow octanol / water at 20°C : No data available.

Solubility : 2.2

9.2. Other information

Explosive properties : N/A

Oxidising properties : No data available.

10. Stability and reactivity

10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

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Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
Thermal decomposition generates : Corrosive vapours. May release flammable gases.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

- **Inhalation :** Based on available data, the classification criteria are not met.
- **Dermal :** Based on available data, the classification criteria are not met.
- **Ingestion :** Based on available data, the classification criteria are not met.

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.

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

12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

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

Environmental precautions : Avoid release to the environment.


13. Disposal considerations

13.1. Waste treatment methods

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General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Handle empty containers with care because residual vapours are flammable.

14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : FORMIC ACID with more than 85% acid by mass

UN N° : 1779

H.I. nr : 83

ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance. 3 : Flammable liquid.

ADR - Classification code : CF1

ADR - Group : II

ADR - Packing instructions : P001

ADR - Limited Quantity : 1 L

ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : FORMIC ACID with more than 85% acid by mass

UN N° : 1779

IMO-IMDG - Class or division : 8 : Corrosive substance. (3 : Flammable liquid.)

IMO-IMDG - Packing group : II

IMO-IMDG - Packing instructions : P001

IMO-IMDG - Limited quantities : 1 L

IMO-IMDG - Marine pollution : No

EMS-Nr : F-E S-C

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : FORMIC ACID with more than 85% acid by mass

UN N° : 1779

IATA - Class or division : 8 : Corrosive substance. (3 : Flammable liquid.)

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 851
instruction


- Passenger and Cargo - Maximum : 1 L

Quantity/Packing

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IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 855
- Cargo only - Maximum Quantity/ : 30 L

Packing

IATA - Limited Quantities : 0.5 L

ERG-Nr : 8F

15. Regulatory information

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

Safety, health and environmental : Ensure all national/local regulations are observed.
regulations/legislation specific for the substance or mixture

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

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

Further information : None.

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