

MATERIAL SAFETY DATA SHEET**Product Name:** Formic acid**CAS No.:** 64-18-6**Version:** 0**1. Identification**

Product Code : 90289, 91508
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2. Hazards Identification**Hazard classification**

Flammable liquids : Category 3
Acute toxicity, Oral : Category 4
Acute toxicity, Inhalation : Category 3
Skin corrosion : Category 1A

Label elements**Hazard symbol****Signal word**

: Danger

Hazard statement: Flammable liquid and vapour.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Toxic if inhaled.**Precautionary statement**: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store in a well-ventilated place. Keep container tightly closed.

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Supplemental Hazard Statements : None.

3. Composition/information on ingredients

Ingredient	CAS No
Formic acid	64-18-6

4. First Aid Measures**Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation

: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact

: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eye contact

: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Swallowed

: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed Treatment

: No data available

5. Fire fighting measures**Extinguishing media****Suitable extinguishing media**

: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

: Carbon oxides

Advice for firefighters

: Wear self contained breathing apparatus for fire fighting if necessary

MATERIAL SAFETY DATA SHEET**Product Name:** Formic acid**CAS No.:** 64-18-6**Version:** 0**Further information** : Use water spray to cool unopened containers.**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures** : Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.**Environmental precautions** : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.**Methods and materials for containment and cleaning up** : Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations**Reference to other sections** : For disposal see section 13.**7. Handling and Storage****Precautions for safe handling** : Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.**Conditions for safe storage, including any incompatibilities** : Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.
: Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Vent periodically. Handle and open container with care.**Specific end use(s)** : Hygroscopic. Refrigerate before opening. Flammable liquids
: No data available

MATERIAL SAFETY DATA SHEET**Product Name:** Formic acid**CAS No.:** 64-18-6**Version:** 0**8. Exposure Controls Personal Protection****Control parameters****Components with workplace control parameters****Exposure controls****Appropriate engineering controls** : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.**Personal protective equipment****Eye/face protection** : Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).**Skin Protection Hand protection** : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.**Body Protection** : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.**Respiratory protection** : Respiratory protection is required.**9. Physical and Chemical Properties****Appearance** : Clear colorless liquid**Odor** : No data available**pH** : 2.2 g/l at 20 °C**Melting point/freezing point** : 8,2 - 8,4 °C**Initial boiling point and boiling range** : 100 - 101 °C**Flash Point** : 49.5 °C**Vapor pressure** : 42.00 hPa at 20 °C
169.99 hPa at 50 °C**Vapor density** : 1.59 - (Air = 1.0)**Relative density** : 1.22 g/cm³ at 25 °C**Solubility in water** : Completely miscible**Solubility (other)** : No data available**Formula** : CH₂O₂**Molecular Weight** : 46.03 g/mol**10. Stability and Reactivity****Reactivity** : No data available

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- Chemical stability** : Stable under recommended storage conditions.
Contains the following stabiliser(s): Water (5 %)
- Possibility of hazardous reactions** : No data available
- Conditions to avoid** : Heat, flames and sparks.
- Incompatible materials** : Strong oxidizing agents, Strong bases, Powdered metals
- Hazardous decomposition products** : No data available

11. Toxicological Information**Information on toxicological effects**

- Acute toxicity** : LD50 Oral - Rat - 730 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - Rat - 4 h - 7,4 mg/l
- Skin corrosion/irritation** : Skin - Rabbit
Result: Severe skin irritation
(Draize Test)
- Serious eye damage/eye irritation** : Eyes - Rabbit
Result: Severe eye irritation
- Respiratory or skin sensitization** : Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
- Germ cell mutagenicity** : No data available
- Carcinogenicity** : No data available
- Reproductive toxicity** : No data available
- Specific target organ toxicity - single exposure** : No data available
- Specific target organ toxicity - repeated exposure** : No data available
- Aspiration hazard** : No data available

12. Ecological Information

- Toxicity** : Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 46 - 100 mg/l - 96 h
- Persistence and degradability** : Biodegradability Result: > 90 % - Readily biodegradable
(OECD Test Guideline 301C)
- Bioaccumulative potential** : Bioaccumulation is unlikely.
- Mobility in soil** : No data available.
- Other adverse effects** : Harmful to aquatic life.

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- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws.
- Contaminated packaging** : Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	1779	FORMIC ACID	8(3)	II	No
IMDG	1779	FORMIC ACID	8(3)	II	No
IATA	1779	FORMIC ACID	8(3)	II	No

15. Regulatory Information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information**Issue Date** :01/08/2014**Version** : 0

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MATERIAL SAFETY DATA SHEET**Product Name:** Formic acid**CAS No.:** 64-18-6**Version:** 0**THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).**