

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.05.2023

Version number 1

Revision: 03.05.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Formic acid 75 %
- **Article number:** 171
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Chemical.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Möller Chemie GmbH & Co. KG  
Bürgerkamp 1  
D-48565 Steinfurt  
Tel.: 02551/9340-0  
Fax: 02551/9340-60
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05



GHS07

- **Signal word** Danger
- **Hazard statements**  
H302+H332 Harmful if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.

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- P321 Specific treatment (see on this label).  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

EUH071 Corrosive to the respiratory tract.

- **2.3 Other hazards**

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

- **Results of PBT and vPvB assessment**

- **PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

- **vPvB:**




The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:** Mixture of the substances listed below with harmless additives.

- **Dangerous components:**

CAS: 64-18-6	formic acid	75.0%
EINECS: 200-579-1	 Flam. Liq. 3, H226;  Acute Tox. 3, H331;  Met. Corr. 1, H290; Skin Corr. 1B, H314, EUH071	
Index number: 607-001-00-0		

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:** Supply fresh air, consult doctor in case of complaints.

- **After skin contact:**

Remove contaminated clothing and shoes immediately.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting.

Call a doctor immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**

Burning and pain in the eyes, the mucous membranes of the nose and throat and the skin. Cough.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fire with alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

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Carbon monoxide

carbon dioxide

- **5.3 Advice for firefighters**

- **Protective equipment:** Wear full protective suit with self-contained breathing apparatus.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

- Wear protective equipment. Keep unprotected persons away.

- Do not inhale vapors.

- **6.2 Environmental precautions:**

- Dilute with plenty of water.

- Do not allow to enter sewers/ surface or ground water.

- Inform the responsible authorities if larger quantities are released.

- **6.3 Methods and material for containment and cleaning up:**

- Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).

- Use neutralising agent.

- Ensure adequate ventilation.

- Dispose contaminated material as waste according to item 13.

- **6.4 Reference to other sections**

- See Section 7 for information on safe handling.

- See Section 8 for information on personal protection equipment.

- See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

- Ensure good ventilation / exhaust at the workplace.

- Avoid contact with skin, eyes and clothing.

- Prevent formation of aerosols.

- **Information about fire - and explosion protection:**

- Keep ignition sources away - Do not smoke.

- Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

- Keep container tightly closed and store in a dry and well-ventilated place.

- **Information about storage in one common storage facility:**

- Do not store together with alkalis (caustic solutions).

- Store away from oxidising agents.

- Store away from metals.

- **Further information about storage conditions:**

- Store only in the original container.

- Keep container tightly sealed.

- Keep away from direct sunlight and other sources of heat and ignition.

- **Storage class:** 8 B (non-flammable, corrosive hazardous substances (except only metal-corrosive))

- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.  
 Do not breathe vapors or spray mist.
- **Respiratory protection:** Suitable respiratory protective device recommended.
- **Hand protection**



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
 Butyl rubber, BR  
 Chloroprene rubber, CR  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** chemical protective suit

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** Colourless
- **Odour:** Pungent
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** >100 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** 12.0 Vol %
- **Upper:** 38.0 Vol %
- **Flash point:** not applicable
- **Ignition temperature:** 528 °C
- **Decomposition temperature:** Not determined.
- **pH** Not determined.
- **Viscosity:**
- **Kinematic viscosity** Not determined.

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· <b>Dynamic:</b>	<i>Not determined.</i>
· <b>Solubility</b>	
· <b>water:</b>	<i>Fully miscible.</i>
· <b>Partition coefficient n-octanol/water (log value)</b>	<i>Not determined.</i>
· <b>Vapour pressure:</b>	<i>Not determined.</i>
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	<i>1.171 g/cm<sup>3</sup></i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapour density</b>	<i>Not determined.</i>

· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	<i>Fluid</i>
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Auto-ignition temperature:</b>	<i>Product is not selfigniting.</i>
· <b>Explosive properties:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Solvent content:</b>	
· <b>VOC (EC)</b>	<i>0,00 %</i>
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	<i>Not determined.</i>

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	<i>Void</i>
· <b>Flammable gases</b>	<i>Void</i>
· <b>Aerosols</b>	<i>Void</i>
· <b>Oxidising gases</b>	<i>Void</i>
· <b>Gases under pressure</b>	<i>Void</i>
· <b>Flammable liquids</b>	<i>Void</i>
· <b>Flammable solids</b>	<i>Void</i>
· <b>Self-reactive substances and mixtures</b>	<i>Void</i>
· <b>Pyrophoric liquids</b>	<i>Void</i>
· <b>Pyrophoric solids</b>	<i>Void</i>
· <b>Self-heating substances and mixtures</b>	<i>Void</i>
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	<i>Void</i>
· <b>Oxidising liquids</b>	<i>Void</i>
· <b>Oxidising solids</b>	<i>Void</i>
· <b>Organic peroxides</b>	<i>Void</i>
· <b>Corrosive to metals</b>	<i>Void</i>
· <b>Desensitised explosives</b>	<i>Void</i>

### **SECTION 10: Stability and reactivity**

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions**  
*Reacts with strong alkali.*  
*Reacts with oxidising agents.*  
*Reactions with metals with the formation of hydrogen.*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:**  
*Strong oxidizing agents*  
*alkalis*  
*uncoated metals, common metals*

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- **10.6 Hazardous decomposition products:**  
No hazardous decomposition products if stored and handled as prescribed/indicated become.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
  - **Acute toxicity**  
Harmful if swallowed or if inhaled.
  - **LD/LC50 values relevant for classification:**
- | 64-18-6 formic acid |          |                |
|---------------------|----------|----------------|
| Inhalative          | LC50/ 4h | 7.4 mg/l (rat) |
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
  - **Serious eye damage/irritation**  
Causes serious eye damage.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** 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.
  - **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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· Recommended cleansing agents: Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

· 14.1 UN number or ID number  
· ADR, IMDG, IATA

UN3412

· 14.2 UN proper shipping name  
· ADR  
· IMDG, IATA

3412 FORMIC ACID  
FORMIC ACID

· 14.3 Transport hazard class(es)  
· ADR, IMDG, IATA



· Class  
· Label

8 Corrosive substances.  
8

· 14.4 Packing group  
· ADR, IMDG, IATA

II

· 14.5 Environmental hazards:  
· Marine pollutant:

No

· 14.6 Special precautions for user  
· Hazard identification number (Kemler code):  
· Stowage Category  
· Stowage Code

Warning: Corrosive substances.  
80  
A  
SW2 Clear of living quarters.

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· Transport/Additional information:

· ADR  
· Limited quantities (LQ)  
· Excepted quantities (EQ)

1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml  
E

· Tunnel restriction code

· IMDG  
· Limited quantities (LQ)  
· Excepted quantities (EQ)

1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· UN "Model Regulation":

UN 3412 FORMIC ACID, 8, II

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms GHS05 GHS07
- Directive 2012/18/EU
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

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· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H226 Flammable liquid and vapour.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

EUH071 Corrosive to the respiratory tract.

· **Department issuing SDS:** Product safety department· **Contact:** Mrs. Steyer

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1