

# Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Revision Date: 22.09.2022 Version 2

# TEKKİM

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

### 1.1 Product identifier

Catalog No. TK.930264.00000  
Product Name Formic Acid %98  
Cas no 64-18-6

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

#### 1.2.1. Relevant identified uses

Use as laboratory reagent.

#### 1.2.2. Uses advised against

No information available.

### 1.3. Details of the supplier of the safety data sheet

Name TEKKİM KİMYA SAN. TİC. LTD. ŞTİ.  
Street ORGANİZE SAN. BÖL. MAVİ CAD. 8. SOK. NO :1 NİLÜFER / BURSA  
Telephone 0224 243 21 71  
E-mail erhan@tekkim.com.tr  
Company Representative Erhan DİLER

**1.4 Emergency Telephone Number +90 506 990 36 86**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP)

Flammable liquid, Category 3  
Acute toxicity, Category 4, Oral  
Acute toxicity, Category 3, Inhalation  
Skin Corrosion, Category 1A

For the full text of the H and EUH statements referred to in this section, see section 16.

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictograms



Signal word (SEA)

DANGER


Hazard Statements (SEA)

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic by inhalation.

Precautionary Statements (SEA)



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## Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

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

## Intervention

P301+P330+P331 IF SWALLOWED: Rinse mouth. DO NOT try to vomit.

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

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

P307+P311 In case of exposure: Call a POISON CENTER 114 or doctor/physician.

## SECTION 3: Composition/information on ingredients

Classification according to Regulation (EC) No. 1272/2008 (CLP)

### 3.1 Maddeler

EC No	200-579-1
Molar mass	46.03 g/mol
Cas No	64-18-6
Concentration	(>= 90 % - <= 100 % )

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Following inhalation	Remove casualty to fresh air and keep warm and at rest..
Following skin contact	Wash with plenty of water. Take off contaminated clothing.
Following eye contact	In case of contact with eyes, rinse immediately with plenty of water and consult an ophthalmologist.
Following ingestion	Please give up to two glasses of water. Get immediate medical attention.. Do not induce vomiting..

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

The most important known symptoms and effects are described in the labelling

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

No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water. Foam. Dry extinguishing powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

There is no restriction for this item.

### 5.2 Special hazards arising from the substance or mixture

Flammable. Heavy vapors in the air at the ground surface may occur. It can create explosive mixtures with air on intense heating. In case of fire hazardous combustion gases or vapors may occur.

### 5.3 Advice for firefighters

Special protective equipment for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. Keep a safe distance to cut off contact with skin and wear suitable protective clothing.

### 5.4 Additional information

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures



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Advice for non-emergency personnel: Don't breathe vapours, aerosols. Avoid substance contact. Keep away from head and source of ignition. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert..

## 6.2 Environmental precautions

Do not discharge into sewer. Risk of explosion.

## 6.3 Methods and material for containment and cleaning up

Close drainage channels. Take up with liquid-absorbent material. Clean the affected area. Avoid generation of dust..

## 6.4 Reference to other sections

Disposal: see section 13.

## 6.5 Additional information

Clear spills immediately.

## SECTION 7: Handling and Storage

### 7.1 Precautions for safe handling

*Advices on safe handling*

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

*Advices on general occupational hygiene*

Change contaminated clothing. Wash hands after working with substance. It is recommended to use a skin protection cream.

### 7.2 Conditions for safe storage, including any incompatibilities

*Storage conditions*

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and anything that can cause ignition. Protect from light .. Metal packaging should not be used .. Use valve caps and valves to ensure gas outlet and balance pressure

### 7.3 Specific end uses

There are no other specific uses other than those mentioned in section 1.2.

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

Formic acid (64-18-6)

TR OEL 8 hours determined for reference time measured or calculated time weighted average (TWA): 5 mbp 9 mg / m3

### 8.2 Exposure controls

#### Appropriate engineering controls

More attention should be paid to technical measures against the use of personal protective equipment.

#### Personal protection equipment


*Eye/face protection*

Fully fitting safety glasses

*Hand protection*



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Hand protection

Full contact

Glove material : polychloropen

Glove thickness :0,65 mm

Break through time : >480minute

Splash contact :

Glove material : natural latex

Glove thickness :0,60 mm

Break through time : >60minute

The protective gloves to be used must comply with the specifications of directive 89/686/EEC and the related standart EN374

*Other skin protection*

Flame reterdant antistatic protective chlothing.

*Respiratory protection*

Required when vapors / aerosols are formed.

Recommended Filter Type: E(93) filter

## SECTION 9: Physical and chemical Properties

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Transparent
Odour	Stinging
Odour threshold	0.02 - 49.1 mbp
pH value	2,2 10 g/l 20 °C
Melting point/freezing point	4 °C
Freezing point	No information.
Initial boiling point and boiling range	101 °C 1.013 hPa
Flash point	49,5 °C 1.013 hPa
Evaporation rate	No information.
Flammability (solid, gas)	528 °C
Upper/lower flammability or explosive limits	12 %(V)
Upper/lower flammability or explosive limits	38 %(V)
Vapour pressure	42 hPa 20 °C
Vapour density	1,59
Density	1,22 g/cm3 20 °C
Relative density	No information.
Water solubility (g/l)	Soluble.
Fat solubility (g/l)	No information.
Partition coefficient: n-octanol/water	log Pow: -2.1 (23 °C) OECD Test Guideline 107 Bioaccumulation is not expected.
Auto-ignition temperature	No information.
Decomposition temperature	350 °C
Viscosity	
Kinematic viscosity	No information..
Dynamic viscosity	1,8 mPa.s 20 °C
Explosive properties	Not classified as explosive.
Oxidising properties	none

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

Vapor/air mixtures are explosive if overheated.

### 10.2 Chemical stability



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Sensitive to light. Sensitive to air.

## 10.3 Possibility of hazardous reactions

Risk of explosion or formation of flammable gases or vapors with aluminum.

Risk of explosion with organic nitro compounds, sodium hypochlorite, hydrogen peroxide, furfuryl alcohol.

In contact with alkalines, strong oxidizing agents, sulfuric acid, nonmetal oxides, metal catalysts, phosphorus oxides, nitric acid, nitrates, it creates dangerous gases or vapors.

They can react exothermic with alkaline earth hydroxides, alkali hydroxides, bases, amines.

## 10.4 Conditions to avoid

Strong heating. Keep away from direct sunlight.

## 10.5 Incompatible materials

Metals.

## 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: 730 mg / kg

OECD Test Guideline 401

Symptoms: If swallowed, severe burning of the mouth and throat with perforation of the esophagus and stomach there is a risk.

Acute inhalation toxicity

LC50 Rat: 7.85 mg / l; 4 hrs; steam

OECD Test Guideline 403

Symptoms: Burning of mucous membranes, Cough, Shortness of breath, Possible damages: damage to the respiratory system, Pulmonary edema

Skin irritation

Rabbit

Result: Causes burns.

OECD Test Guideline 404

Causes severe burns. Dermatitis, skin burning

Eye irritation

Causes serious eye damage. conjunctivitis Lacrimal irritation due to vapors.

Blindness risk!

### 11.2 Additional information

After absorption:

acidosis, haemolysis


Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1 Toxicity



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## Toxicity to fish

LC50 Leuciscus idus (Golden orpere): 46 - 100 mg / l; 96 h (IUCLID)

## Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 34.2 mg / l; 48 hrs (IUCLID)

## Toxicity to algae (algae)

IC50 Desmodesmus subspicatus (green algae): 27 mg / l; 72 hrs (Source)

## Toxicity to bacteria

EC10 active waste: 72 mg / l; 13 g (External product safety sheet)

EC50 Pseudomonas putida: 47 mg / l; 17 hrs (IUCLID)

## Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

semi-static test NOEC Daphnia magna (Water flea): > = 100 mg / l; 21 g

Analytical monitoring: yes

OECD Test Guideline 211

## 12.2 Persistence and degradability

### Biodegradation

one hundred %; 28 g; oxygenated (aerobic)

OECD Test Guideline 301 C

It is easily soluble in nature by itself.

## 12.3 Bioaccumulative potential

Partition coefficient ( n-octanol/water)

log Pow: -2.1 (23 °C)

OECD Test Guideline 107

Bioaccumulation is not expected.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB.

## 12.6 Other adverse effects

Forms corrosive mixtures even when diluted. Harmful effect due to pH change. Neutralization is possible in the wastewater treatment plant. Discharge into the environment should be prevented.

## SECTION 13: Disposal considerations

### Waste treatment methods

It must be disposed of in accordance with national and local regulations. Do not mix with other products. Uncleaned Treat packages as if it were the product itself ... Waste materials must be disposed of in accordance with national and local regulations.

## SECTION 14: Transport information

ADR	IMDG	IATA	ADN	RID
<b>14.1 UN number</b> UN 1779	UN 1779	UN 1779	UN 1779	UN 1779
<b>14.2 UN proper shipping name</b> FORMIC ACID with more than 85% acid by mass	FORMIC ACID with more than 85% acid by mass	FORMIC ACID with more than 85% acid by mass	FORMIC ACID with more than 85% acid by mass	FORMIC ACID with more than 85% acid by mass

## 14.3 Transport hazard class(es)



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## 14.4 Packing group

II

II

II

II

II

## 14.5 Environmental hazards

YES

YES

YES

YES

YES

No information available.

No information available.

No information available.

No information available.

No information available.

## 14.6 Special Precautions for User:

No information available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental legislation specific for the substance or mixture

This product safety data sheet complies with the requirements of EU Regulation 1907/2006.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance.

## SECTION 16: Other informations

### Full text of H statements

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H331 Toxic by inhalation.

Person Who Prepared the Safety Data Sheet:

Name:

Erhan DİLER

Certificate Number and Date:

11.29.03 & 11 Şubat 2020

Communication information:

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