

# Safety Data Sheet

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

Revision Date: 08.09.2022 Version 2

# TEKKİM

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

### 1.1 Product identifier

Catalog No. TK.201801.00000  
Product Name Isobutanol  
Cas no 78-83-1

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

#### 1.2.1. Relevant identified uses

Industrial use. Use as a 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

Skin irritation, Category 2

Serious eye damage, Category 1

Specific Target Organ Toxicity – Single exposure, Category 3, Central nervous system

Specific Target Organ Toxicity – Single exposure, Category 3, Respiratory system

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.

H315 Causes skin irritation.

H318 Causes serious eye damage.


H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P313 Get medical advice/see your doctor.

## SECTION 3: Composition/information on ingredients

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

### 3.1 Maddeler

EC No	201-148-0
Molar mass	74.12 g/mol
Cas No	78-83-1
Concentration	(<= 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

Be careful if the patient vomits. Aspiration hazard! Keep airway clear and call a doctor immediately. Lung failure is possible after inhalation of vomit. Call a doctor immediately.

### 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

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-than-air vapors may form on the floor surface. Forms explosive mixtures with air at intense temperatures. In case of fire, dangerous flammable gases or vapors may develop.

### 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

Be careful not to mix into the 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.

## 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 dry and well-ventilated places. Keep away from heat and anything that can cause ignition.

### 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

Contains no substances with occupational exposure limit values.

### 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*

Hand protection

in full contact

Glove material : Nitrile rubber

Glove thickness: 0.40 mm

Absorption time: > 480 minutes

In contact with splash

Glove material : Nitrile rubber


Glove thickness : 0.11 mm

Absorption time: > 10 minutes

The gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resulting standard EN374.



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## Other skin protection

Flame retardant antistatic protective clothing.

## Respiratory protection

Required when vapors/aerosols are generated.

Recommended Filter type: Filter A (according to DIN 3181), for vapors of organic compounds.

## SECTION 9: Physical and chemical Properties

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	like alcohol
Odour threshold	0,001 - 73,0 mbp
pH value	7,0 80 g/l 20 °C
Melting point/freezing point	-108 °C
Freezing point	No information.
Initial boiling point and boiling range	106 - 108 °C 1.013 hPa
Flash point	28 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Upper/lower flammability or explosive limits	1,5 %(V)
Upper/lower flammability or explosive limits	12 %(V)
Vapour pressure	12 hPa 20 °C
Vapour density	2,55
Density	0,802 g/cm <sup>3</sup> 20 °C
Relative density	No information.
Water solubility (g/l)	85 g/l 20 °C
Fat solubility (g/l)	No information.
Partition coefficient: n-octanol/water	log Pow: 0,79 (25 °C)
Auto-ignition temperature	430 °C
Decomposition temperature	No information.
Viscosity	
Kinematic viscosity	4 mPa.s 20 °C
Dynamic viscosity	No information.
Explosive properties	Not classified as explosive.
Oxidising properties	none

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

Vapours may form explosive mixtures with air.

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

They can give exothermic reactions with acid chlorides and strong reducing agents.

There is a risk of explosion or formation of flammable gases or vapors with chromium (VI) oxide, strong oxidizing agents, aluminum.

Violent reactions possible with alkali metals and alkaline earth metals.

### 10.4 Conditions to avoid

In case of warming.

### 10.5 Incompatible materials

Aluminum, rubber, various plastics.

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information



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## 11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: > 2,830 mg/kg

OECD Test Guideline 401

Symptoms: risk of aspiration with vomiting, Inhalation may cause pulmonary edema and pneumonitis.

Acute inhalation toxicity

LC50 Rat: 24.6 mg/l; 4 hours; steam

(IUCLID)

Symptoms: mucosal irritations, cough, shortness of breath.

Acute dermal toxicity

LD50 Rat: 2,460 mg/kg

OECD Test Guideline 402

Skin irritation

Since it reduces the oil rate on the skin, it can irritate the skin and cause burns in case of prolonged exposure at certain intervals.

Causes skin irritation.

Eye irritation

Risk of corneal clouding.

Causes serious eye damage.

Specific Target Organ Toxicity – Single exposure

May cause respiratory tract irritation.

Target Organs: Respiratory system

May cause drowsiness or dizziness.

Target Organs: Central nervous system

## 11.2 Additional information

After absorption: Headache, dizziness, intoxication, unconsciousness, narcosis.

After uptake of large quantities: Coma, respiratory paralysis.

Handle in accordance with safety and hygiene rules.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish

LC50 Pimephales promelas (Carp juvenile): 1,430 mg/l; 96 h

(IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC5 E.sulcatum: 295 mg/l; 72 hours

(Source)

EC50 Daphnia magna (Water flea): 1,439 mg/l; 48 hours

DIN 38412

(IUCLID)

Toxicity to algae (algae)

IC50 Desmodesmus subspicatus (green algae): 1,250 mg/l; 48 hours

(IUCLID)

Toxicity to bacteria


EC50 Photobacterium phosphoreum: 1.225 mg/l; 15 minutes

(IUCLID)

### 12.2 Persistence and degradability



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## Biodegradation

99%; 14g  
OECD Test Guideline 301A  
It is easily biodegradable by itself.

>90%; 5 g  
OECD Test Guideline 302B  
It is easily purified from water.

Chemical Oxygen Demand (COD)  
2,600 mg/g  
(External product safety sheet)

### 12.3 Bioaccumulative potential

Partition coefficient ( n-octanol/water)  
log Pow: 0.79 (25 °C)  
OECD Test Guideline 107

### 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

Discharge into environment must be avoided.

## 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 1212	UN 1212	UN 1212	UN 1212	UN 1212
<b>14.2 UN proper shipping name</b> ISOBUTANOL (ISOBUTYL ALCOHOL)	ISOBUTANOL (ISOBUTYL ALCOHOL)	ISOBUTANOL (ISOBUTYL ALCOHOL)	ISOBUTANOL (ISOBUTYL ALCOHOL)	ISOBUTANOL (ISOBUTYL ALCOHOL)

### 14.3 Transport hazard class(es)

3 3 3 3 3



### 14.4 Packing group

III III III III III

### 14.5 Environmental hazards



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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.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

Person Who Prepared the Safety Data Sheet:

Name: Erhan DİLER  
Certificate Number and Date: 11.29.03 & 11 Şubat 2020  
Communication information: 05069903686



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