



Trade name: Ethylmethylketon

Substance number: 155700

Version: 1 / CH

Date revised: 13.08.10

Replaces Version: - / CH

Date of printing: 01.05.12

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

### 1.1. Product identifier

Ethylmethylketon  
Item-No. 15570000

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

#### Address

Hänseler AG  
Industriestrasse 35  
9101 Herisau  
Telephone no. 0041 (0)71 353 58 58  
E-mail address of  
person responsible sdb@haenseler.ch  
for this SDS

### 1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)  
Flam. Liq. 2 H225  
Eye Irrit. 2 H319  
STOT SE 3 H336

#### Classification in accordance with EC directives

Classification F, R11  
R66  
R67  
Xi, R36

### 2.2. Label elements

#### Labelling according to regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal Word

Danger

#### Hazard statements

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
EUH066 Repeated exposure may cause skin dryness or cracking.  
H336 May cause drowsiness or dizziness.

#### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.



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P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.  
 P405 Store locked up.

**Labelling in accordance with EC directives 1999/45/EC and 67/548/EEC**

The product is classified and labelled in accordance with EC directives/the relevant national laws.

**Hazard symbols**

Highly flammable



Irritant

**R phrases**

11 Highly flammable.  
 36 Irritating to eyes.  
 66 Repeated exposure may cause skin dryness or cracking.  
 67 Vapours may cause drowsiness and dizziness.

**S phrases**

2 Keep out of the reach of children.  
 9 Keep container in a well-ventilated place.  
 16 Keep away from sources of ignition - No smoking.

**3. Composition/information on ingredients****Hazardous ingredients****Butanone**

CAS No.	78-93-3			
EINECS no.	201-159-0			
Concentration		>=	50	%
Classification	Xi, R36 F, R11 R66 R67			

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319
STOT SE 3	H336
Flam. Liq. 2	H225

**4. First aid measures****4.1. Description of first aid measures****General information**

Take affected person to fresh air. Remove contaminated clothing immediately and dispose of safely.

**After inhalation**

Ensure supply of fresh air. Breathing with the help of a ventilator bag or ventilator. Heat. In the event of symptoms take medical treatment. If the patient is likely to become unconscious, place and transport in stable sideways position.



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**After skin contact**

Wash off immediately with soap and water and rinse well. Consult a doctor if skin irritation persists.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

**After ingestion**

Do not induce vomiting. Summon a doctor immediately. Rinse out mouth and give plenty of water to drink. Administer activated charcoal.

**5. Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Dry powder, Foam, Water spray jet

**Non Suitable extinguishing media**

Full water jet

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

In the event of fire the following can be released: Carbon monoxide (CO); Can build mixtures of gas and air which are capable of explosion.

**5.3. Advice for firefighters****Special protective equipment for fire-fighting**

In case of combustion use a suitable breathing apparatus.

**Other information**

Cool endangered containers with water spray jet.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep away unprotected persons. Keep away sources of ignition.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Do not empty into drains, caverns and basements. In case the product spills into sewage waters, immediately inform the authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

**6.3. Methods and material for containment and cleaning up**

Pick up with absorbent material. When picked up, treat material as prescribed under heading "Disposal". Ensure adequate ventilation.

**7. Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Open and handle container with care. Provide good ventilation of working area (local exhaust ventilation if necessary). Provide good room ventilation even at ground level (vapours are heavier than air). Avoid formation of aerosols.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - refrain from smoking. Vapours can form an explosive mixture with air. Take precautionary measures against static charges. Use explosion-proof equipment/fittings and non-sparking tools. Risk of explosion if the liquid enters the drains.



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

### Requirements for storage rooms and vessels

explosion proof. Provide solvent-resistant and impermeable floor. Suitable materials: Use steel or stainless steel containers.

### Hints on storage assembly

Do not store with oxidizing agents.

### Further information on storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from heat and direct sunlight.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limit values

##### Butanone

List	SUVA			
Type	MAK			
Value	590	mg/m <sup>3</sup>	200	ppm(V)
Short term exposure limit	590	mg/m <sup>3</sup>	200	ppm(V)
Maximum limit value: 15 min; Skin resorption / sensibilisation: H; Pregnancy group: C; Status: 2005; Remarks: B				

### 8.2. Exposure controls

#### Exposure controls

See chapter 7. No measures exceeding the ones mentioned are necessary.

#### General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands before breaks and after work. Avoid contact with eyes and skin. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols.

#### Respiratory protection

Breathing apparatus in the event of vapours. Gas filterA.

#### Hand protection

Chemical resistant gloves			
Appropriate Material	Butyl rubber		
Material thickness	0.5	mm	
Penetrating time	>= 1	h	

Not suitable: gloves made of thick material

Not suitable: leather gloves

Not suitable: gloves of natural latex

Not suitable: gloves of polychloroprene

Not suitable: gloves of nitrile rubber - NBR

Not suitable: PVC gloves

Not suitable

#### Eye protection

Tightly fitting safety glasses

#### Body protection

Solvent-resistant protective clothing

## 9. Physical and chemical properties



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**9.1. Information on basic physical and chemical properties**

<b>Form</b>	liquid		
<b>Colour</b>	colourless		
<b>Odour</b>	pleasant		
<b>Melting point</b>			
Value	-86		°C
method	ASTM D 97		
Source	Safety Data Sheet Supplier		
<b>Boiling point</b>			
Value	78	to	81 °C
method	ASTM D 1078		
Source	Safety Data Sheet Supplier		
<b>Flash point</b>			
Value	-4		°C
method	DIN 51758		
Source	Safety Data Sheet Supplier		
<b>Explosion limits</b>			
Lower explosion limit		to	11.5 % (V)
Upper explosion limit	-	to	1.8 % (V)
Source	Safety Data Sheet Supplier		
<b>Vapour pressure</b>			
Value	105		hPa
Temperature	20		°C
Source	Safety Data Sheet Supplier		
<b>Density</b>			
Value	0.806		g/cm <sup>3</sup>
method	DIN 51757		
Source	Safety Data Sheet Supplier		
<b>Solubility in water</b>			
Value	290		g/l
Temperature	20		°C
Source	Safety Data Sheet Supplier		
<b>Octanol/water partition coefficient (log Pow)</b>			
Reference substance	Butanone		
log Pow	0.29		
Source	Safety Data Sheet Supplier		
<b>Ignition temperature</b>			
Value	514		°C
method	DIN 51794		
Source	Safety Data Sheet Supplier		
<b>Viscosity</b>			
<b>dynamic</b>			
Value	0.423		mPa.s
Temperature	15		°C
method	DIN 51550		
Source	Safety Data Sheet Supplier		

**9.2. Other information****Other information**

The product is dangerous for explosions.



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## **10. Stability and reactivity**

### **10.4. Conditions to avoid**

Heat. Flames. Sparks

### **10.5. Incompatible materials**

Alkalies, Strong oxidising agents, amines

### **10.6. Hazardous decomposition products**

Peroxides

### **Other information**

Vapours and gases can form an explosive mixture with air.

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

#### **Acute oral toxicity**

Reference substance	Butanone	
Species	rat	
LD50	3300	mg/kg
Source	Safety Data Sheet Supplier	

#### **Acute dermal toxicity**

Reference substance	Butanone	
Species	rabbit	
LD50	> 8000	mg/kg
Source	Safety Data Sheet Supplier	

#### **Acute inhalational toxicity**

Reference substance	Butanone	
Species	rat	
LC50	20	mg/l
Duration of exposure	4	h
Source	Safety Data Sheet Supplier	

#### **Skin corrosion/irritation**

Reference substance	Butanone
valuation	non-irritant
Source	Safety Data Sheet Supplier

#### **Serious eye damage/irritation**

Reference substance	Butanone
Remarks	Irritates the eyes.
Source	Safety Data Sheet Supplier

#### **Sensitization**

Reference substance	Butanone
Remarks	No sensitiation effect known.
Source	Safety Data Sheet Supplier

## **12. Ecological information**

### **12.1. Toxicity**

#### **Fish toxicity**

Reference substance	Butanone
Species	golden orfe (Leuciscus idus)



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LC50	4600	mg/l
Duration of exposure	96 h	
Source	Safety Data Sheet Supplier	
Reference substance	Butanone	
Species	Fathead minnow (Pimephales promelas)	
LC50	3220	mg/l
Duration of exposure	96 h	
Source	Safety Data Sheet Supplier	

**Daphnia toxicity**

Reference substance	Butanone	
Species	Daphnia magna	
EC50	5091	mg/l
Duration of exposure	48 h	
Source	Safety Data Sheet Supplier	

**Bacteria toxicity**

Reference substance	Butanone	
Species	Pseudomonas putida	
EC0	1150	mg/l
Source	Safety Data Sheet Supplier	

**12.2. Persistence and degradability****Physico-chemical eliminability**

Reference substance	Butanone	
Value	> 78	%
Duration of test valuation	28 d	
Source	Readily biodegradable Safety Data Sheet Supplier	

**Biodegradability**

Value	> 70	%
Duration of test valuation	28 d	
Source	Readily biodegradable Safety Data Sheet Supplier	

**Chemical oxygen demand (COD)**

Reference substance	Butanone	
Value	100	%O(m)
Source	Safety Data Sheet Supplier	

**Biochemical oxygen demand (BOD5)**

Reference substance	Butanone	
Value	83	%O(m)
Source	Safety Data Sheet Supplier	

**12.3. Bioaccumulative potential****Octanol/water partition coefficient (log Pow)**

Reference substance	Butanone	
log Pow	0.29	
Source	Safety Data Sheet Supplier	

**12.6. Other adverse effects****General information / ecology**

Innocuous to aquatic organisms. Do not allow it to reach ground water, water bodies or sewage system.

**13. Disposal considerations**



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### 13.1. Waste treatment methods

#### Disposal recommendations for the product

In accordance with regulations for special waste, must be taken, to an authorised special waste incineration plant.

#### Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

## 14. Transport information

### Land transport ADR/RID

#### 14.1. UN number

UN 1193

#### 14.2. UN proper shipping name

ETHYL METHYL KETONE (METHYL ETHYL KETONE)

#### 14.3. Transport hazard class(es)

Class 3

Label 3

#### 14.4. Packing group

Packing group II

### Marine transport IMDG/GGVSee

#### 14.1. UN number

UN 1193

#### 14.2. UN proper shipping name

ETHYL METHYL KETONE (METHYL ETHYL KETONE)

#### 14.3. Transport hazard class(es)

Class 3

#### 14.4. Packing group

Packing group II

### Air transport ICAO/IATA

#### 14.1. UN number

UN 1193

#### 14.2. UN proper shipping name

ETHYL METHYL KETONE (METHYL ETHYL KETONE)

#### 14.3. Transport hazard class(es)

Class 3

#### 14.4. Packing group

Packing group II

## 15. Regulatory information

## 16. Other information

### R-phrases listed in chapter 3

11	Highly flammable.
36	Irritating to eyes.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

### Hazard statements listed in chapter 3

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

### Supplemental information





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Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.