



## Safety Data Sheet



**Signal word: DANGER**

**Hazard statements:**

H225 Easy inflammable liquid and vapour.

H319 Extremely irritate eyes.

H335 May cause respiratory irritation

EUH066 Repeated exposure may cause skin dryness or cracking.

**Precautionary statement:**

*Preventions:*

P210 Keep away from heat/sparks/open flame/hot surface. No smoking.

P264 Wash your hands thoroughly after handling.

*Response:*

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and if you can do it without problems. Continue rinsing.

*Storage:*

P403+P233+P235 Store in airy and well signed place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.

*Disposal*

P501 Dispose of contents/containers in accordance with local regulation

**The substance listed on the label**

Ethyl methyl ketone, Pentan-3-on, n-butyl acetate

**2.3 Other hazards**

PBT and vPvB evaluations: not applicable

### **SECTION 3: Composition / information on ingredients**

#### **3.1 Substance**

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See section 3.2

### 3.2 Mixture

Chemical name	CAS Nr. EC-Number INDEX number	%	Classification according to EC 1272/2008	
			Hazardous class/hazardous category	Hazardous phrases
Ethyl methyl ketone	606-002-00-3	25-50	Flam.Liq.2	H225
	201-159-0		Eye irrit. 2	H319
	78-93-3		STOT SE 3	H336
Pentan-3-on	606-006-00-5	25-50	Flam. Liq. 2	H225
	202-490-3		STOT SE 3	H335
	96-22-0		STOT SE 3	H336
n-butyl acetate	607-025-00-1	10-25	Flam. Liq. 3	H226
	204-658-1		STOT SE 3	H336
	123-86-4			

### **SECTION 4: First Aid Measures**

#### **4.1 Description of first aid measures**

*Inhalation:*

Bring injured person to fresh air and lay him down. For safety reason look for medical aid. If injured person does not breath, give him/her artificial breathing.

*Skin contact:*

Remove contaminated clothes. Rinse with water and soap. If skin reaction is indicated, seek for medical attention.

*Eye contact:*

Rinse eyes with plenty of water app. 10-15min, Seek for medical attention.

*Ingestion:*

Rinse mouth with water than drink at least 100ml of water. Do not challenge vomiting. Seek for medical aid immediately.

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

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

Specific treatment: First aid, decontamination, treatment of symptoms.

Notes for the doctor: Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

*Suitable:*

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Water mist, foam, dust, CO<sub>2</sub>, dry extinguisher.

*Unsuitable:*

Water jet

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

Burning can cause rising of carbon monoxide.

### 5.3 Advice for firefighters

Using of respiratory apparatus

## **SECTION 6: Accidental release measures**

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

Wear protective clothing, provide for adequate fresh air.

### 6.2 Environmental precautions

Prevent expansion. Do not allow flowing into sewage system. Keep away from fire and electrostatic charge.

### 6.3 Methods and material for containment and cleaning up

Absorb residues in sand or other an inert material, collect in sealed containers and disposed of in accordance with point 13.

### 6.4 Reference to other sections

Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Keep away from open flames, sparks or sources of ignition and electrostatic charge. Do not smoke. In the liquid state, it is flammable. Vapors are lighter than air and formed with an explosive mixture.

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

Store in tightly sealed containers in warehouse with room temperature and good ventilation. Keep away from direct sunlight.

### 7.3. Specific end use(s)

Product is used in dental laboratories.

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<b>SECTION 8: Exposure controls/personal protection</b>		
<b>8.1 Control parameters</b>		
<b>Ethyl methyl ketone</b>		
<b>OEL</b>	Current exposure: 900 mg/m <sup>3</sup> , 300 ppm Long-term exposure: 600 mg/m <sup>3</sup> , 200 ppm K, Y, BAT, EU	
<b>BAT</b>	2 mg/l, urine, after working	
<b>n-butyl acetate</b>		
<b>OEL</b>	Current exposure: 600 mg/m <sup>3</sup> , 124 ppm Long-term exposure: 300 mg/m <sup>3</sup> , 62 ppm Y	
<b>Oral</b>	<b>DNEL</b>	3,4 mg/kg body weight /day (users-long-term exposure-systemic effect)
<b>Dermal</b>		7 mg/kg body weight /day (workers-long-term exposure-systemic effect)
<b>Inhalation</b>		3,4 mg/kg body weight /day (users-long-term exposure-systemic effect) 48 mg/m <sup>3</sup> (workers-long-term exposure-systemic effect) 12 mg/m <sup>3</sup> (users-long-term exposure-systemic effect)
	<b>PNEC</b>	Fresh water: 0,18mg/l
		Sea water: 0,018mg/l
		Release intervals: 0,36mg/l
		Waste water treatment plan: 35,6 mg/l
		The sediment in the fresh water associated with the weight of the dry material: 0,981 mg/kg
		The sediment in the sea water associated with the weight of the dry material: 0,0981mg/kg
		Floor associated with the weight of the dry matter: 0,0903 mg/kg
<b>8.2 Exposure controls</b>		

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**Personal protection:**

Personal protective equipment in accordance with Regulation (EU) 2016/425 And List of harmonized standards for personal protection equipment 2018/C 209/03.

**Personal protective equipment**
*General protection and hygienic measures:*

Immediately take off the contaminated clothes. Don't inhale gas, aerosols. During work do not eat, drink or smoke. Wash hand before break and when you finish with work.

*Respiratory protection:*

With sufficient ventilation and with regards to intended use any special protection is not necessary, otherwise mask EN 140:1998/AC:1999 with protective filter type A [boiling point >65°C (149°F)] (EN14387:2004+A1:2008).

*Hand protection:*

Gloves resistance against solvent EN ISO 374-1:2016. Wear solvent resistant gloves. Material: nitrile rubber; thickness 0,2 mm.

*Skin and body protection:*

Protective antistatic coat (EN ISO 1149-5:2008) and antistatic footwear (EN ISO 20345:2011).

*Eye protection:*

Wearing safety goggles (EN 166:2001).

**8.3 Control of environment protection**

Common instructions: Do not wash rinse with fresh water or to drainage system. If the aquaducte or drainage system is contaminated, inform competent authorities immediately.

**SECTION 9: Physical and chemical properties**
**9.1 Information on basic physical and chemical properties**

Aggregation	Liquid
Colour	Silver, gold, red
Odour	Aromatic
Boiling point	79°C
Melting point	-86°C
Flammability	370°C

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Flash point	-4°C
Pressure	105 mbar (20°C)
Density	0,9 g/cm <sup>3</sup> (20°C) (H <sub>2</sub> O=1)
Melting in water	Does not mix
pH	neutral
Lower explosive limit	1,2 vol. %
Upper explosive limit	11,5 vol. %
Solvent content	> 85%
VOC (EC)	85%

### 9.2 Other information

No additional information relevant to safe use of the mixture.

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

#### **10.1 Reactivity**

Not reactive under normal temperature and proper use.

#### **10.2 Chemical stability**

Vapour at normal pressure.

#### **10.3 Possibility of hazardous reaction**

No data available.

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

Keep away from: oxidizing substances, strong acids, bases, alkali metal hydroxides.

#### **10.5 Incompatible materials**

No data available

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

Peroxide

### **SECTION 11: Toxicological information**

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

The product has an irritating effect on respiratory organs, eyes and skin. Prolonged exposure can cause headache, dizziness, nausea and vomiting. In rare cases it can cause neurotoxicity.

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**Chemical name: Ethyl Methyl ketone**

Acute toxicity-oral: LD50 (rat): 3300 mg/kg

Acute toxicity – dermal: LD50 (rat): 5000mg/kg

Acute toxicity – inhalational: LC50 (mice): 50mg/L

Other information: Irritating to eyes and skin. It causes skin degreasing.

Additional warning: Long-term exposure can cause liver damage. High concentration may cause dizziness and tiredness.

**SECTION 12: Ecological information****12.1 Toxicity***General information:* Slightly hazardous for water. Avoid runoff into groundwater, watercourses or drains.**ethyl methyl ketone**

LC50&gt;1000mg/L

LC50 (fish-Leuciscus idus,96 ur): 4600 mg/L

LC50 (bacteria-Pseudomonas putida): 1150mg/L

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

No data available.

**12.6 Other adverse effect**

No data available.

**SECTION 13: Disposal consideration***Methods of disposal:* Remove disposal in accordance with local legislation.*Removing of residues:* The waste is stored separately. Because of possible pollution, remove as industrial waste or hazardous waste (Ur. I. RS 84/98, 45/00 in 13/03).



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*Contaminated packaging:* The waste is stored separately. Because of possible pollution, remove as industrial waste or hazardous waste (Ur. L. RS 104/00, 12/02).

*Waste classification:*

16 03 05\* Organic wastes contain dangerous substances.

08 01 11\* Waste paint and varnish containing organic solvents or other dangerous substances.

### **SECTION 14: Transport Information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	UN 1263		
<b>14.2 UN proper shipping name</b>	PAINT		
<b>14.3 Transport hazard class(es)</b>			
Class	3		
Classification code	F1	/	/
Hazard identification	33	/	/
Label	3		
Tunnel restriction code	(D/E)	/	/
<b>14.4 Packing group</b>	II		
<b>14.5 Environmental hazards</b>	No environmental hazard		
<b>14.6 Special precautions for user</b>	No special precautions		
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	No data available		

### **SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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Product is classified in accordance with directive EC 1907/2006 and 1272/2008 and additional changes or national legislation Ur.l. RS 101/2002 and Ur.l.RS 16/2008.

### 15.2 Chemical safety assessment

No data available from component's supplier.

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

#### *Revision:*

Version 07 issued on February 2020 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008.

#### *Legend of abbreviations:*

ADR – European agreement concerning the international carriage of dangerous goods by road

CAS – Chemical Abstracts Service

CLP – Classification, Labeling and Packaging

CMR – Carcinogenic, Mutagenic or toxic for Reproduction

DNEL - Derived no-effect level

EC<sub>50</sub>: Half maximal effective concentration

EmS – Emergency Schedule

GHS – Globally Harmonised System of Classification and Labeling of Chemicals

IATA – International Air Transport Association

IMDG – International Maritime Dangerous Goods Code

LC<sub>50</sub>: Lethal concentration, 50%

LD<sub>50</sub>: Median lethal dose; the dose causing 50% lethality

MARPOL – International convention for the prevention of pollution from ships

NOEC - No-observed-effect concentration

OEL - Occupational exposure limit

OECD - Organisation for Economic Co-operation and Development

PBT – Persistent Bioaccumulative Toxic

PNEC: Predicted no-effect concentration

Ppm – parts per million

REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals

RID – Regulation concerning the international carriage of dangerous goods by rail

vPvB – very Persistent and very Bioaccumulative

#### *References:*

Safety data sheets of the substances for the product

Directive EC 1907/2006 and 1272/2008 with all amendments and implementations

Council Directive 98/24/EC with all implementations and amendments

Official Gazette RS, No. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18, 78/19;

Directive 2008/98/EC with all amendments, Official Gazette RS 37/15, 69/15.

Martindale: The Extra Pharmacopoeia, 13. edition

European convention about international transport of hazardous material ADR

- Dangerous Goods Regulations (DGR) for the air transport (IATA)

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International Maritime Dangerous Goods Code IMDG

*Disclaimer of expressed and implied warranties:*

The information contained in the safety data sheet refer to the manufacturer's current knowledge and are a guideline for the safe use, handling, disposal, storage and transportation, but cannot be used as a guarantee. The information relates only to the specific product and is not suitable for combining with other materials or for use in another process as described in the instructions.