

## Safety Data Sheet

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

**1.1 Product identifier** **SPACING VARNISH THINNER (REF 386)**

**UFI code** JJ14-W144-2H18-6E9A

**1.2. Relevant identified uses of the substance or mixture and uses advised against**  
 Product is used for thinning the spacing varnish.

**1.3 Details of the supplier of the safety data sheet**

<b>Manufacturer/Supplier:</b>	INTERDENT d.o.o.	<i>Production:</i> INTERDENT d.o.o.
<b>Street:</b>	Opekarniška cesta 26	Dol 1
<b>Country code /Postal code/City:</b>	SI-3000 Celje	SI-3342 Gornji Grad
<b>Telephone:</b>	+386(0) 425-62-00	
<b>Fax:</b>	+368(0) 490-62-02	

**1.4 Emergency telephone number**

**Emergency phone:** 112 (EU)  
 +386(0) 425-62-00 (8.00 – 16.00)

### **SECTION 2: Hazards Identification**

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008:

Hazard class	Hazard category	Hazard statements
Flammable liquids	Hazard Category 2	H225 Easy inflammable liquid and vapour.
Serious eye damage/eye irritation	Hazard Category 2	H319 Extremely irritate eyes.
Specific target organ toxicity – Single exposure	Hazard Category 3, Respiratory tract irritation	H335 May cause respiratory irritation.
Specific target organ toxicity – Single exposure	Hazard Category 3	H336 May cause drowsiness or dizziness.

**2.2 Label elements**

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

**Labeling of outer packaging**

**Hazard pictograms:**

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**Signal word: DANGER**

**Hazard statements:**

H225 Easy inflammable liquid and vapour.

H319 Extremely irritate eyes.

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

**Precautionary statements:**

*Preventions:*

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/ eye protection.

P261 Avoid breathing vapours.

P264 Wash hands thoroughly after handling

*Response:*

P303 + P361 + P353 IF ON SKIN: Take off immediately all contaminated clothing.

Rinse skin with water.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P337 + P313 If eye irritation persists: Get medical advice/ attention.

*Storage:*

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

*Disposal:*

P501 Dispose of contents/containers in accordance with local regulation

*Hazard- determining components of labelling:*

Butanone, pentan-3-one

**Label, in accordance with Regulation (EC) No. 1272/2008, Section 1.5.1 of Annex I**

**Hazard pictograms:**

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*Hazard- determining components of labelling:*

Butanone, pentan-3-one

*Hazard and precautionary statements:*

According to Regulation (EC) no. 1727/2008, Section 1.5.1 of Annex I, hazard and precautionary statements are not required but are stated on the outer packaging.

### 2.3 Other hazards

PBT and vPvB evaluations are in section 12.5

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

#### 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	50-100	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	2,5-10	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:*

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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

Main symptoms: cough, nausea, vomiting, headache, unconsciousness, shortness of breath, dizziness, narcosis.

Special hazard: Pulmonary edema, effects on the central nervous system, prolonged skin contact may cause dry skin and dermatitis.

### 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:*

Water spray, dust, CO<sub>2</sub>.

*Unsuitable:*

Water with full jet.

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

Burning can cause rising of carbon monoxide.

### 5.3 Advice for firefighters

Protective equipment: Do not inhale explosion gases or combustion gases.

## SECTION 6: Accidental release measures

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

Wear protective clothing, provide for adequate fresh air. Keep unprotected persons away.  
Keep away from ignition sources.

### 6.2 Environmental precautions

Prevent further spillage if it can be done safely. Remove all possible sources of ignition in the vicinity. Use appropriate containment (product and firefighting water) to prevent environmental contamination. Prevent spreading or entering drains, ditches, or rivers by using sand, earth, or other suitable barriers. Try to disperse vapors or direct their flow to a safe location, for example by using water mist. Take precautionary measures against static discharge. Ensure electrical grounding by bonding and grounding all equipment. Monitor the area with a flammable gas detector.

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### 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

See sections: 7, 8, 13.

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

### 7.1 Precautions for safe handling

Keep away from open flames, sparks, or sources of ignition and electrostatic discharge. Ensure proper grounding of process equipment. Limit pumping speed to avoid generating electrostatic charges. Avoid splash filling. DO NOT use compressed air for filling, emptying, or handling. No smoking. In liquid form it is flammable. Vapors are heavier than air and form explosive mixtures with it.

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

Tightly closed containers in storage areas at room temperature with good ventilation, not exposed to direct sunlight or sources of heat and ignition. Keep away from aerosols, flammable substances, oxidizers, corrosives, and products that are toxic to humans or the environment.

Incompatible products: oxidizers, corrosives, strong acids, and strong bases.

### 7.3. Specific end use(s)

Product is used for coating of stone model in dental laboratory.

## **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

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, 72/21

### **Ethyl methyl ketone**

<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

K – Property of easier penetration of a substance into the body through the skin.

Y – Substances for which there is no risk to the fetus if occupational exposure limits and BAT values are observed.

BAT – Biological limit value – a biological limit is defined as a warning level of a

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hazardous chemical substance and its metabolites in tissues, body fluids, or exhaled air, regardless of whether the hazardous substance has entered the body by inhalation, ingestion, or through the skin.

EU1 – Limit value established by Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work (OJ L No 142, 16.6.2000, p. 47).

### n-butyl acetate

<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
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NOAEL: 550 mg/kg body weight/day

#### 8.1.1 DNEL

*Substance name: Ethyl methyl ketone (butanone 78-93-3)*

DNEL long-term exposure: 600 mg/m<sup>3</sup>

*Substance name: n-butyl acetate (123-86-4)*

DNEL long-term systemic effect, workers, inhalation: 300 mg/m<sup>3</sup> → Causes respiratory tract irritation

DNEL long-term systemic effects, general population, inhalation: 35.7 mg/m<sup>3</sup> → Causes respiratory tract irritation

DNEL acute/short-term exposure, workers, inhalation: 600 mg/m<sup>3</sup> → Causes respiratory system irritation

DNEL acute/short-term exposure, general population, inhalation: 300 mg/m<sup>3</sup> → Causes respiratory system irritation

DNEL long-term effect, workers, dermal: 11 mg/kg body weight/day

DNEL long-term effect, general population, dermal: 6 mg/kg body weight/day

DNEL acute/short-term exposure, workers, dermal: 11 mg/kg body weight/day

DNEL acute/short-term exposure, general population, dermal: 6 mg/kg body weight/day

DNEL long-term effect, general population, oral: 2 mg/kg body weight/day

NOAEL (workers, inhalation): 550 mg/kg body weight/day

NOAEL (general population, inhalation): 554 mg/kg body weight/day

NOAEL (general population, oral): 196 mg/kg body weight/day

#### *Workers – inhalation route – systemic effects of long-term exposure*

In subchronic rodent studies, systemic effects (changes in body weight and transient sedation) and local respiratory effects appear simultaneously. From a mechanistic perspective, it is most likely that systemic effects (i.e., changes in body weight, but not sedation) are secondary to local respiratory effects, since necrosis of the olfactory epithelium causes pain, which may lead to reduced food intake. From occupational exposure to n-BuAc and from volunteer studies, it is known that irritant effects occur before central nervous system depressant effects, which are usually evident only at very

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high exposure concentrations (details of exposure concentrations not available) (AGS, 2012; Greim, 1999). Therefore, local irritant effects are considered the most sensitive endpoint observed and are thus used for DNEL derivation. Consequently, the DNEL for local effects of long-term inhalation exposure has been accepted as the DNEL for systemic effects of long-term inhalation exposure.

### *Workers – inhalation route – systemic effects of short-term exposure*

Since local effects are the most sensitive endpoint, the DNEL for acute inhalation exposure for workers (derived from local effects) is considered protective also for systemic effects. Therefore, the DNEL for local effects of short-term inhalation exposure has been accepted as the DNEL for systemic effects of short-term inhalation exposure.

Data for the general population are corrected according to the exposure duration. For workers, exposure time is 8h/day, 5 days/week, while for the general population it is 24h/day, 7 days/week.

### *Substance name: Pentan-3-one (96-22-0)*

DNEL (systemic effect, long-term exposure, workers): 708 mg/m<sup>3</sup>

DNEL (local effect, respiratory tract, long-term exposure, workers): 705 mg/m<sup>3</sup>

DNEL (acute/short-term exposure, respiratory tract, workers): 1,057 mg/m<sup>3</sup>

DNEL (systemic effect, long-term exposure, dermal, workers): 101 mg/kg body weight/day

Pentan-3-one is not classified as acutely toxic via dermal exposure. Acute/short-term exposure does not cause skin irritation, but it does cause eye and respiratory tract irritation.

DNEL (acute, local effect, workers): 300 ppm

NOAEC (long-term exposure, inhalation, workers): 5000 ppm

## 8.2 Exposure controls

### *Personal protection:*

Personal protective equipment in accordance with: Regulation (EU) 2016/425 and the list of harmonized standards for PPE – 2018/C 209/03.

### *General safety and hygiene measures:*

Immediately remove contaminated or soaked clothing.

Do not inhale gas, vapors, or aerosols.

Do not eat, drink, or inhale vapors while working.

Wash hands during breaks and after finishing work.

### *Respiratory protection:*

Not required under proper use in a dental laboratory.

The dental technician handles packaging up to a maximum of 30 mL per product unit.

Avoid inhaling vapors or aerosols.

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Ventilate the workspace several times.

*Eye protection:*

Corrective glasses or polycarbonate goggles according to EN 166.

*Hand protection:*

Wear suitable protective gloves.

Chemical-resistant gloves according to standard EN 374-1.

Recommended protective gloves for transferring and for dental technicians: nitrile gloves Type B EN 374-1.

### 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.

<b>SECTION 9: Physical and chemical properties</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
<b>Physical state</b>	Liquid
<b>Colour</b>	Silver, gold, red
<b>Odour</b>	Aromatic
<b>Boiling point</b>	79°C
<b>Flash point</b>	-4°C
<b>Ignition temperature</b>	445°C
<b>Pressure</b>	105 hPa (20°C)
<b>Density</b>	0,81 g/cm <sup>3</sup> (20°C) (H <sub>2</sub> O=1)
<b>Melting in water</b>	Does not mix
<b>pH</b>	Not applicable
<b>Lower explosive limit</b>	1,2 vol. %
<b>Upper explosive limit</b>	11,5 vol. %
<b>VOC (EC)</b>	100%
<b>9.2 Other information</b>	
No additional information relevant to safe use of the mixture.	

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No further relevant information available.

#### 10.2 Chemical stability

Vapour at normal pressure.

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### 10.3 Possibility of hazardous reaction

No data available.

### 10.4 Conditions to avoid

No further relevant information available.

### 10.5 Incompatible materials

No further relevant information available.

### 10.6 Hazardous decomposition products

No dangerous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008

The product has an irritating effect on the respiratory organs. In rare cases, it may cause neurotoxicity.

### 11.2 Acute toxicity:

*Chemical name: Methyl ethyl ketone (butanone 78-93-3)*

Acute toxicity – Oral: LD50 (rat): 2193 mg/kg

Acute toxicity – Dermal: LD50 (rabbit): > 10 mL/kg

Acute toxicity – Oral (male/female): 2328 mg/kg / 2054 mg/kg

Acute toxicity – Inhalation: LC50 (mouse): 50 mg/L

Clinical signs in animals included gait disturbances, unconsciousness, and coma.

NOAEC (subchronic inhalation toxicity): 5014 ppm (14870 mg/m<sup>3</sup>) causes weight reduction and increased absolute liver weight and liver/body weight ratio.

Does not cause skin irritation. Causes severe eye irritation. Recommended workplace value to prevent irritation: 200 ppm

*Chemical name: n-Butyl acetate (123-86-4)*

Acute toxicity – Oral: LD50 (rat): 10760–12790 mg/kg

Acute toxicity – Oral: LD50 (rabbit): 7400 mg/kg

Acute toxicity – Dermal: LD50 (rabbit): > 14000 mg/kg

Acute inhalation toxicity is estimated above the classification limit (> 20 mg/L).

Repeated inhalation primarily causes weight loss, decreased food intake, reduced activity, and ataxia. Temporary dizziness may occur. Increased weight of kidneys, liver, and spleen observed in males at higher concentrations. Mid-level exposures increased testis, adrenal, and lung weights in males. Effects observed in stomach and respiratory system.

Females at highest concentrations showed glandular stomach irritation and non-glandular stomach necrosis. Some rats exposed to 1500 and 3000 ppm showed degeneration of the olfactory epithelium along the dorsal medial meatus and ethmoid sinuses. Repeated dermal and oral exposure has not been studied. Does not irritate eyes or skin.

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Exposure to high concentrations may cause neurotoxicity, present only during exposure.  
NOAEL (subchronic systemic oral effect, rat): 196 mg/kg body weight/day  
NOAEC (subchronic inhalation, rat): 2400 mg/m<sup>3</sup>  
NOAEC (subchronic local inhalation effect, rat): 2400 mg/m<sup>3</sup>

*Chemical name: Pentan-3-one (99-22-0)*

Acute toxicity LD50 (oral, rat): 2900 mg/kg

Acute toxicity LD50 (dermal, rabbit): 16200 mg/kg

Acute toxicity LC50 (4h, inhalation, rat): > 20 mg/L (estimated)

Causes eye and respiratory irritation. Repeated inhalation at 5000 ppm reduces body weight, increases kidney weight, and urine output in rats.

Not classified as neurotoxic.

Excessive ketone vapor exposure may gradually cause irritation of eyes, nose, and throat, and neurotoxic symptoms such as nausea, dizziness, uncoordination, or narcosis in humans. Eye irritation threshold for diethyl ketone  $\approx$  700 ppm; respiratory irritation threshold  $\approx$  400 ppm in human volunteers.

### 11.3 Genetic toxicity

*Methyl ethyl ketone (butanone 78-93-3)*: No effect.

*n-Butyl acetate (123-86-4)*: Negative results in all genotoxicity tests in vivo and in vitro; not genotoxic.

*Pentan-3-one (99-22-0)*: Based on available data, not classified as genotoxic.

### 11.4 Carcinogenicity

*Methyl ethyl ketone*: Not assessed for carcinogenicity as it is not genotoxic.

*n-Butyl acetate*: Not carcinogenic according to known data.

### 11.5 Reproductive toxicity

*Methyl ethyl ketone*: NOAEL (reproductive toxicity): 2000 ppm (8177 mg/m<sup>3</sup>), NOAEC (pregnancy/fetus): 1000 ppm (3003 mg/m<sup>3</sup>), NOAEL (neurotoxicity): 2000 ppm (8177 mg/m<sup>3</sup>)

*n-Butyl acetate*: Fetal studies in rabbits showed no reproductive toxicity at 1500 ppm.

Rats exposed during pregnancy showed developmental toxicity (reduced fetal weight and size) with maternal toxicity (LOAEC 7230 mg/m<sup>3</sup>). No malformations observed in rats or rabbits.

*Pentan-3-one*: Not classified as toxic for reproduction.

Serious eye damage/eye irritation: Causes severe eye irritation.

*Respiratory/skin sensitization*: No data.

*Germ cell mutagenicity*: No data.

*Carcinogenicity*: No data.

*Reproductive toxicity*: No data.

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*STOT – single exposure:* No data.

*STOT – repeated exposure:* No data.

*Inhalation hazard:* May cause respiratory irritation.

*Other information:* Irritates skin and eyes, causes defatting of the skin. Prolonged exposure may cause liver damage. High concentrations may cause fatigue and dizziness.

### **SECTION 12: Ecological information**

#### **12.1 Toxicity**

*Methyl ethyl ketone (butanone 78-93-3):*

Aquatic organisms: LC50 > 1000 mg/L

LC50 (freshwater fish, 96 h): 2973 mg/L

EC50 (Daphnia magna, 48 h): 308 mg/L

EC50 (algae, 72 h): 1220 mg/L

The substance is not acutely toxic to aquatic organisms, algae, cyanobacteria, or microorganisms.

Due to biodegradability and low soil adsorption potential, toxicity to terrestrial organisms is not expected or assessed.

*n-Butyl acetate and pentan-3-one:*

Toxicity data for aquatic organisms are not available.

Substances are not classified as environmentally toxic.

#### **12.2 Persistence and degradability**

*Methyl ethyl ketone:*

Expected to be readily biodegradable.

Hydrolysis and further biodegradability information are not required.

*n-Butyl acetate (123-86-4):*

Expected to be readily biodegradable; no further biodegradability or bioaccumulation data required.

Hydrolysis half-life: 78 days at pH 8, 2 years at pH 7

Photodegradation half-life (calculated): 3.3 days

PNEC (freshwater): 0.18 mg/L

PNEC (standing freshwater): 0.36 mg/L

PNEC (marine water): 0.018 mg/L

PNEC (wastewater treatment plant): 35.6 mg/L

PNEC (sediment, freshwater): 0.981 mg/kg dw

PNEC (sediment, marine water): 0.098 mg/kg dw

PNEC (soil): 0.09 mg/kg dw

Acute hazard for aquatic organisms: EC50/LC50 > 10 mg/L

Long-term chronic hazard for aquatic organisms: EC50/LC50 > 10 mg/L

MOAEC/LC10 for chronic toxicity: > 10 mg/L

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*Pentan-3-one (96-22-3):*

Degradation half-life in air: 7.82 days (degrades to -OH radicals)

Photodegradation half-life in water: 39.6–3301 days

PNEC (freshwater): 0.5 mg/L

PNEC (marine water): 0.05 mg/L

PNEC (wastewater treatment plant): 6.287 mg/L

PNEC (sediment, freshwater): 2.17 mg/kg dw

PNEC (soil): 0.207 mg/kg dw

### 12.3 Bioaccumulative potential

*Methyl ethyl ketone (butanone 78-93-3):*

Low potential for bioaccumulation and mobility in water/sediments due to a low octanol/water partition coefficient.

n-octanol/water (log Kow): 0.3 at 40°C

Biodegradable; bioaccumulation is not expected.

### 12.4 Mobility in soil

Soil adsorption is not expected for any components due to biodegradability.

### 12.5 Results of PBT and vPvB assessment

No data available.

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

Slightly hazardous to water. Prevent release to groundwater, surface water, or sewer systems.

## 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. l. RS 84/98, 45/00 in 13/03).

*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.

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<b>SECTION 14: Transport Information</b>			
	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	UN 1224		
<b>14.2 UN proper shipping name</b>	1224 KETONES, LIQUID, N.O.S. (ETHYL METHYL KETONE (METHYL ETHYL KETONE), DIETHYL KETONE)		
<b>14.3 Transport hazard class(es)</b>			
Class	3		
Classification code	/	/	/
Hazard identification	33	/	/
Label(s)	3		
Tunnel restriction code	/	/	/
<b>14.4 Packing group</b>	II		
<b>14.5 Environmental hazards</b>	No environmental hazard		
<b>14.6 Special precautions for user</b> · Hazard identification number (Kemler code) · EMS Number:	Warning: <i>Flammable liquids.</i>  · Hazard identification number (Kemler code): 33  · EMS Number: F-E,S-D		
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not transported in bulk		
· <b>Transport/Additional information:</b> · <b>ADR</b> · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · <b>IMDG</b> · Limited quantities (LQ) 1L · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml			

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

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

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 10 issued on July 2025 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008.

Revision in accordance to changes in COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

#### *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 sheet of the raw material manufacturer

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- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC, and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/105/EEC, and 2000/21/EC (amended by Commission Regulation (EU) No 830/2015) – with amendments and supplements
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 – with amendments and supplements
- Commission Directive 2009/161/EU
- Waste Management Regulation (Official Gazette of the RS, Nos. 77/22 and 113/23)
- Packaging and Packaging Waste Regulation (Official Gazette of the RS, Nos. 54/21, 208/21, 44/22 – ZVO-2 and 120/22)
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Decision on the publication of Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Dangerous Goods Regulations (DGR) for air transport (IATA)
- International Maritime Dangerous Goods (IMDG) Code
- Regulation on the protection of workers against risks related to exposure to chemical agents at work (Official Gazette of the RS, Nos. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 and 78/19, 72/21, 29/24)
- Regulation on the implementation of the EU Regulation on Personal Protective Equipment (Official Gazette of the RS, No. 33/18)
- List of harmonized standards for personal protective equipment (C 412 / 11.12.2015, with all amendments and supplements)
- Occupational Health and Safety Act (Official Gazette of the RS, No. 43/2011)
- Martindale: The Extra Pharmacopoeia, 13th edition
- Website: <https://chem.echa.europa.eu/>

*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.