Evochem®

PVC PRIMER
24-05-20

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: PVC PRIMER
24-05-20

Other means of identification:

UFI: JXC0-M085-T00P-S3CF

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

Relevant uses: Adhesive for rigid PVC

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Evochem S.A.
Tzaverdella Place
133 41 Phili - Attica - Greece
Phone: 0030 210 5590460 , 0030 210 5590155 - Fax: 0030 210 6254737 , 0030 210 5590244
info@evochem.gr
http://www.evochem.gr

1.4 Emergency telephone number: National Poisoning Center 2107793777

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Carc. 2: Carcinogenicity, Category 2, H351
Eye Irrit. 2: Eye irritation, Category 2, H319
Flam. Liq. 2: Flammable liquids, Category 2, H225
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger

Hazard statements:

Carc. 2: H351 - Suspected of causing cancer.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
STOT SE 3: H336 - May cause drowsiness or dizziness.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264: Wash thoroughly after handling.
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.
P501: Dispose of contents/container according to the separated collection system used in your municipality.

Supplementary information:

EUH019: May form explosive peroxides.
EUH066: Repeated exposure may cause skin dryness or cracking.

Substances that contribute to the classification

Butanone; tetrahydrofuran

UFI: JXC0-M085-T00P-S3CF

2.3 Other hazards:

*** Changes with regards to the previous version*

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Product fails to meet PBT/vPvB criteria

*** Changes with regards to the previous version*

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of resins in solvents

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 78-93-3 EC: 201-159-0 Index: 606-002-00-3 REACH: 01-2119457290-43-XXXX	**Butanone**(1)	ATP CLP00	**50 - <75 %**
	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger 	
CAS: 108-94-1 EC: 203-631-1 Index: 606-010-00-7 REACH: 01-2119453616-35-XXXX	**Cyclohexanone**(1)	ATP CLP00	**9,9 - <19 %**
	Regulation 1272/2008	Acute Tox. 4: H332; Flam. Liq. 3: H226 - Warning 	
CAS: 109-99-9 EC: 203-726-8 Index: 603-025-00-0 REACH: 01-2119444314-46-XXXX	**tetrahydrofuran**(1)	ATP ATP0	**9,9 - <19 %**
	Regulation 1272/2008	Carc. 2: H351; Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H335; EUH019 - Danger 	

(1) Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

In case of consumption, seek immediate medical assistance showing the SDS for the product.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO_2).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

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SECTION 7: HANDLING AND STORAGE (continued)

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,…) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 ºC

Maximum Temp.: 35 ºC

Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC,Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Butanone	IOELV (8h)	200 ppm	600 mg/m³
CAS: 78-93-3 EC: 201-159-0	IOELV (STEL)	300 ppm	900 mg/m³
Cyclohexanone	IOELV (8h)	10 ppm	40,8 mg/m³
CAS: 108-94-1 EC: 203-631-1	IOELV (STEL)	20 ppm	81,6 mg/m³
tetrahydrofuran	IOELV (8h)	50 ppm	150 mg/m³
CAS: 109-99-9 EC: 203-726-8	IOELV (STEL)	100 ppm	300 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Butanone	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 78-93-3	Dermal	Non-applicable	Non-applicable	1161 mg/kg	Non-applicable
EC: 201-159-0	Inhalation	Non-applicable	Non-applicable	600 mg/m³	Non-applicable
Cyclohexanone	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 108-94-1	Dermal	4 mg/kg	Non-applicable	4 mg/kg	Non-applicable
EC: 203-631-1	Inhalation	80 mg/m³	80 mg/m³	40 mg/m³	40 mg/m³
tetrahydrofuran	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 109-99-9	Dermal	Non-applicable	Non-applicable	12,6 mg/kg	Non-applicable
EC: 203-726-8	Inhalation	96 mg/m³	300 mg/m³	72,4 mg/m³	150 mg/m³

DNEL (General population):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Butanone	Oral	Non-applicable	Non-applicable	31 mg/kg	Non-applicable
CAS: 78-93-3	Dermal	Non-applicable	Non-applicable	412 mg/kg	Non-applicable
EC: 201-159-0	Inhalation	Non-applicable	Non-applicable	106 mg/m³	Non-applicable
Cyclohexanone	Oral	1,5 mg/kg	Non-applicable	1,5 mg/kg	Non-applicable
CAS: 108-94-1	Dermal	1 mg/kg	Non-applicable	1 mg/kg	Non-applicable
EC: 203-631-1	Inhalation	20 mg/m³	40 mg/m³	10 mg/m³	20 mg/m³
tetrahydrofuran	Oral	Non-applicable	Non-applicable	1,5 mg/kg	Non-applicable
CAS: 109-99-9	Dermal	Non-applicable	Non-applicable	1,5 mg/kg	Non-applicable
EC: 203-726-8	Inhalation	52 mg/m³	150 mg/m³	13 mg/m³	75 mg/m³

PNEC:

Identification				
Butanone	STP	709 mg/L	Fresh water	55,8 mg/L
CAS: 78-93-3	Soil	22,5 mg/kg	Marine water	55,8 mg/L
EC: 201-159-0	Intermittent	55,8 mg/L	Sediment (Fresh water)	284,74 mg/kg
	Oral	1 g/kg	Sediment (Marine water)	284,7 mg/kg
Cyclohexanone	STP	10 mg/L	Fresh water	0,033 mg/L
CAS: 108-94-1	Soil	0,03 mg/kg	Marine water	0,003 mg/L
EC: 203-631-1	Intermittent	0,329 mg/L	Sediment (Fresh water)	0,249 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,025 mg/kg
tetrahydrofuran	STP	4,6 mg/L	Fresh water	4,32 mg/L
CAS: 109-99-9	Soil	2,13 mg/kg	Marine water	0,432 mg/L
EC: 203-726-8	Intermittent	21,6 mg/L	Sediment (Fresh water)	23,3 mg/kg
	Oral	0,067 g/kg	Sediment (Marine water)	2,33 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	CE CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	CE CAT III	EN 420:2004+A1:2010	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	CE CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	CE CAT III	EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer´s instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	CE CAT III	EN ISO 13287:2013 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	100 % weight
V.O.C. density at 20 ºC:	834,85 kg/m³ (834,85 g/L)
Average carbon number:	4,3
Average molecular weight:	76 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 ºC:	Liquid
Appearance:	Transparent
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	83 ºC
Vapour pressure at 20 ºC:	9885 Pa
Vapour pressure at 50 ºC:	35645,11 Pa (35,65 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Product description:

Density at 20 ºC:	834,9 kg/m³
Relative density at 20 ºC:	0,835
Dynamic viscosity at 20 ºC:	0,52 cP
Kinematic viscosity at 20 ºC:	0,62 mm²/s
Kinematic viscosity at 40 ºC:	Non-applicable *
Concentration:	800 g/L (active ingredient)
pH:	Non-applicable *
Vapour density at 20 ºC:	Non-applicable *
Partition coefficient n-octanol/water 20 ºC:	Non-applicable *
Solubility in water at 20 ºC:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	-2 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	321 ºC
Lower flammability limit:	Not available
Upper flammability limit:	Not available

Particle characteristics:

Median equivalent diameter:	Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 20 ºC:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

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SECTION 10: STABILITY AND REACTIVITY (continued)

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

Contains substances which require external energy for spontaneous decomposition. Form explosive peroxides when distilled, evaporated or otherwise concentrated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  IARC: Cyclohexanone (3); tetrahydrofuran (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Butanone	LD50 oral	4000 mg/kg	Rat
CAS: 78-93-3	LD50 dermal	6400 mg/kg	Rabbit
EC: 201-159-0	LC50 inhalation	23,5 mg/L (4 h)	Rat
Cyclohexanone	LD50 oral	2650 mg/kg	Rat
CAS: 108-94-1	LD50 dermal	3160 mg/kg	Rabbit
EC: 203-631-1	LC50 inhalation	11 mg/L (ATEi)	
tetrahydrofuran	LD50 oral	>5000 mg/kg	Rat
CAS: 109-99-9	LD50 dermal	Non-applicable	
EC: 203-726-8	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Product-specific aquatic toxicity:

Acute toxicity		Species	Genus
LC50	1749,89 mg/L (96 h)	Non-applicable	Fish

Substance-specific aquatic toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
Butanone	LC50	3220 mg/L (96 h)	Pimephales promelas	Fish
CAS: 78-93-3	EC50	5091 mg/L (48 h)	Daphnia magna	Crustacean
EC: 201-159-0	EC50	4300 mg/L (168 h)	Scenedesmus quadricauda	Algae
Cyclohexanone	LC50	527 mg/L (96 h)	Pimephales promelas	Fish
CAS: 108-94-1	EC50	800 mg/L (24 h)	Daphnia magna	Crustacean
EC: 203-631-1	EC50	370 mg/L (192 h)	Scenedesmus quadricauda	Algae
tetrahydrofuran	LC50	2160 mg/L (96 h)	Pimephales promelas	Fish
CAS: 109-99-9	EC50	Non-applicable		
EC: 203-726-8	EC50	Non-applicable		

Chronic toxicity:

Identification	Concentration		Species	Genus
tetrahydrofuran	NOEC	216 mg/L	Pimephales promelas	Fish
CAS: 109-99-9 EC: 203-726-8	NOEC	Non-applicable		

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Butanone	BOD5	2,03 g O2/g	Concentration	Non-applicable
CAS: 78-93-3	COD	2,31 g O2/g	Period	20 days
EC: 201-159-0	BOD5/COD	0,88	% Biodegradable	89 %
Cyclohexanone	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 108-94-1	COD	Non-applicable	Period	14 days
EC: 203-631-1	BOD5/COD	Non-applicable	% Biodegradable	87 %
tetrahydrofuran	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 109-99-9	COD	Non-applicable	Period	14 days
EC: 203-726-8	BOD5/COD	Non-applicable	% Biodegradable	100 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Butanone	BCF	3
CAS: 78-93-3	Pow Log	0.29
EC: 201-159-0	Potential	Low
Cyclohexanone	BCF	2
CAS: 108-94-1	Pow Log	0.81
EC: 203-631-1	Potential	Low
tetrahydrofuran	BCF	3
CAS: 109-99-9	Pow Log	0.46
EC: 203-726-8	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Butanone	Koc	30	Henry	5,77 Pa·m³/mol
CAS: 78-93-3	Conclusion	Very High	Dry soil	Yes
EC: 201-159-0	Surface tension	2,396E-2 N/m (25 ºC)	Moist soil	Yes
Cyclohexanone	Koc	17	Henry	9,119E-1 Pa·m³/mol
CAS: 108-94-1	Conclusion	Very High	Dry soil	Yes
EC: 203-631-1	Surface tension	3,437E-2 N/m (25 ºC)	Moist soil	Yes
tetrahydrofuran	Koc	23	Henry	7,19 Pa·m³/mol
CAS: 109-99-9	Conclusion	Very High	Dry soil	Yes
EC: 203-726-8	Surface tension	2,498E-2 N/m (25 ºC)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP3 Flammable, HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP7 Carcinogenic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated
Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to ADR 2021 and RID 2021:

14.1	**UN number:**	UN1133
14.2	**UN proper shipping name:**	ADHESIVES
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	II
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Special regulations:	640D
	Tunnel restriction code:	D/E
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

- CONTINUED ON NEXT PAGE -

SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN number:**	UN1133
14.2	**UN proper shipping name:**	ADHESIVES
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	II
14.5	**Marine pollutant:**	No
14.6	**Special precautions for user**	
	Special regulations:	Non-applicable
	EmS Codes:	F-E, S-D
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:

14.1	**UN number:**	UN1133
14.2	**UN proper shipping name:**	ADHESIVES
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	II
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Physico-Chemical properties:	see section 9
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000	50000

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):

Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

- CONTINUED ON NEXT PAGE -

SECTION 15: REGULATORY INFORMATION (continued)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Precautionary statements

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H225: Highly flammable liquid and vapour.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H332 - Harmful if inhaled.
Carc. 2: H351 - Suspected of causing cancer.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
STOT SE 3: H335 - May cause respiratory irritation.
STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Eye Irrit. 2: Calculation method
STOT SE 3: Calculation method
Carc. 2: Calculation method
Flam. Liq. 2: Calculation method (2.6.4.3)

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu
http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

- END OF SAFETY DATA SHEET -