

**Chemiprint - AD 0021 SLIP & SCRATCH IMPROVER  
C-WS1004**

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

**1.1 Product identifier:** Chemiprint - AD 0021 SLIP & SCRATCH IMPROVER  
C-WS1004

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

Relevant uses: Auxiliary product for printing. For industrial user only.

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:**

Chemiprint LLP  
23 hamasger st  
9906017 beit Shemesh - Israel  
Phone.: 972-2-9901880 -  
Fax: 972-2-9901899  
info@chemiprint.com  
www.chemiprint.com

**1.4 Emergency telephone number:**

**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.

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:**

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:**

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

P280: Wear protective gloves/protective clothing/eye protection/face protection

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

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.

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

P403+P235: Store in a well-ventilated place. Keep cool

P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

**Supplementary information:**

EUH066: Repeated exposure may cause skin dryness or cracking

**Substances that contribute to the classification**

Ethyl acetate; Propan-2-ol

**2.3 Other hazards:**

Product fails to meet PBT/vPvB criteria

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:**

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**





Non-applicable

**3.2 Mixture:**

**Chemical description:** Mixture composed of polymers and resins in solvent

**Components:**

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

Identification	Chemical name/Classification	Concentration
CAS: 141-78-6 EC: 205-500-4 Index: 607-022-00-5 REACH: 01-2119475103-46-XXXX	<b>Ethyl acetate</b> <sup>1</sup> ATP CLP00	25 - <50 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger 	
CAS: 64-17-5 EC: 200-578-6 Index: 603-002-00-5 REACH: 01-2119457610-43-XXXX	<b>Ethanol</b> <sup>1</sup> Self-classified	10 - <25 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger 	
CAS: 67-63-0 EC: 200-661-7 Index: 603-117-00-0 REACH: 01-2119457558-25-XXXX	<b>Propan-2-ol</b> <sup>1</sup> ATP CLP00	2.5 - <10 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger 	
CAS: Non-applicable EC: Non-applicable Index: Non-applicable REACH: Non-applicable	<b>Organic modified polydimethylsiloxane</b> <sup>1</sup> Self-classified	2.5 - <10 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning 	

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

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 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:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**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

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media:**

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**SECTION 5: FIREFIGHTING MEASURES (continued)**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO<sub>2</sub>). IT IS RECOMMENDED NOT to use tap 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:**

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 spilled 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. Destroy 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.

**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.- Precautions for safe manipulation

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

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 94/9/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 to prevent ergonomic and toxicological risks

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

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**SECTION 7: HANDLING AND STORAGE (continued)**

Minimum Temp.: 5 °C  
Maximum Temp.: 40 °C  
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 work environment

Identification	Environmental limits		
	IOELV (8h)	200 ppm	734 mg/m <sup>3</sup>
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	IOELV (STEL)	400 ppm	1468 mg/m <sup>3</sup>
	Year	2017	

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	63 mg/kg	Non-applicable
	Inhalation	1468 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>
Ethanol CAS: 64-17-5 EC: 200-578-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
	Inhalation	Non-applicable	1900 mg/m <sup>3</sup>	950 mg/m <sup>3</sup>	Non-applicable
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	888 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	500 mg/m <sup>3</sup>	Non-applicable

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	Oral	Non-applicable	Non-applicable	4,5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	37 mg/kg	Non-applicable
	Inhalation	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>
Ethanol CAS: 64-17-5 EC: 200-578-6	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicable
	Inhalation	Non-applicable	950 mg/m <sup>3</sup>	114 mg/m <sup>3</sup>	Non-applicable
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	Non-applicable	Non-applicable	26 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	319 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	89 mg/m <sup>3</sup>	Non-applicable

**PNEC:**

Identification				
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	STP	650 mg/L	Fresh water	0,24 mg/L
	Soil	0,148 mg/kg	Marine water	0,024 mg/L
	Intermittent	1,65 mg/L	Sediment (Fresh water)	1,15 mg/kg
	Oral	200 g/kg	Sediment (Marine water)	0,115 mg/kg
Ethanol CAS: 64-17-5 EC: 200-578-6	STP	580 mg/L	Fresh water	0,96 mg/L
	Soil	Non-applicable	Marine water	0,79 mg/L
	Intermittent	2,75 mg/L	Sediment (Fresh water)	3,6 mg/kg
	Oral	720 g/kg	Sediment (Marine water)	Non-applicable

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Identification				
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	STP	2251 mg/L	Fresh water	140,9 mg/L
	Soil	28 mg/kg	Marine water	140,9 mg/L
	Intermittent	140,9 mg/L	Sediment (Fresh water)	552 mg/kg
	Oral	160 g/kg	Sediment (Marine water)	552 mg/kg



**8.2 Exposure controls:**

**A.- General security and hygiene measures in the work place**



As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. 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		EN 405:2001+A1:2009	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	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

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



**D.- Ocular and facial protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012	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		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 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		EN 13287:2008 EN ISO 20345:2011 EN 13832-1:2006	Replace boots at any sign of deterioration.

**F.- Additional emergency measures**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

**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):	62,44 % weight
V.O.C. density at 20 °C:	Non-applicable
Average carbon number:	3,14
Average molecular weight:	69,27 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 °C:	Liquid
Appearance:	Opaque
Colour:	<input type="checkbox"/> White
Odour:	Solvent
Odour threshold:	Non-applicable *

**Volatility:**

Boiling point at atmospheric pressure:	78 °C
Vapour pressure at 20 °C:	7492 Pa
Vapour pressure at 50 °C:	32065 Pa (32 kPa)
Evaporation rate at 20 °C:	Non-applicable *

**Product description:**

Density at 20 °C:	Non-applicable *
Relative density at 20 °C:	0,947
Dynamic viscosity at 20 °C:	4,93 cP
Kinematic viscosity at 20 °C:	5,21 cSt
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Soluble in organic solvents
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

**Flammability:**

Flash Point:	6 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	399 °C
Lower flammability limit:	Not available

\*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)**

Upper flammability limit:	Not available
<b>Explosive:</b>	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
<b>9.2 Other information:</b>	
Surface tension at 20 °C:	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 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

**10.5 Incompatible materials:**

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

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

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

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**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

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

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

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	LD50 oral	5280 mg/kg	Rat
	LD50 dermal	12800 mg/kg	Rat
	LC50 inhalation	72,6 mg/L (4 h)	Rat
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	LD50 oral	4100 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Ethanol CAS: 64-17-5 EC: 200-578-6	LD50 oral	6200 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	124,7 mg/L (4 h)	Rat

**SECTION 12: ECOLOGICAL INFORMATION**

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

**12.1 Toxicity:**

Identification	Acute toxicity		Species	Genus
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	LC50	230 mg/L (96 h)	Pimephales promelas	Fish
	EC50	717 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	3300 mg/L (48 h)	Scenedesmus subspicatus	Algae
Ethanol CAS: 64-17-5 EC: 200-578-6	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae

**12.2 Persistence and degradability:**

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**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	BOD5	1.36 g O2/g	Concentration	100 mg/L
	COD	1.69 g O2/g	Period	14 days
	BOD5/COD	0.81	% Biodegradable	83 %
Ethanol CAS: 64-17-5 EC: 200-578-6	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	0.57	% Biodegradable	89 %
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	BOD5	1.19 g O2/g	Concentration	100 mg/L
	COD	2.23 g O2/g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %

**12.3 Bioaccumulative potential:**

Identification	Bioaccumulation potential	
	Parameter	Value
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	BCF	30
	Pow Log	0.73
	Potential	Moderate
Ethanol CAS: 64-17-5 EC: 200-578-6	BCF	3
	Pow Log	-0.31
	Potential	Low
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	BCF	3
	Pow Log	0.05
	Potential	Low

**12.4 Mobility in soil:**

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	Koc	59	Henry	13,58 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,324E-2 N/m (25 °C)	Moist soil	Yes
Ethanol CAS: 64-17-5 EC: 200-578-6	Koc	1	Henry	4,61E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,339E-2 N/m (25 °C)	Moist soil	Yes
Propan-2-ol CAS: 67-63-0 EC: 200-661-7	Koc	1.5	Henry	8,207E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,24E-2 N/m (25 °C)	Moist soil	Yes

**12.5 Results of PBT and vPvB assessment:**

Product fails to meet PBT/vPvB criteria

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods:**

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

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

HP3 Flammable, HP4 Irritant — skin irritation and eye damage, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

**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. We do not recommend disposal down the drain. See paragraph 6.2.

**Regulations related to waste management:**

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**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

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 2017 and RID 2017:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1993                                   |
| <b>14.2 UN proper shipping name:</b>  | FLAMMABLE LIQUID, N.O.S. (Ethyl acetate) |
| <b>14.3 Transport hazard class(es):</b>   | 3  |
| Labels:   | 3  |
| <b>14.4 Packing group:</b>  | II                                       |
| <b>14.5 Environmental hazards:</b>  | No                                       |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274, 601, 640D                           |
| Tunnel restriction code:  | D/E                                      |
| Physico-Chemical properties:  | see section 9                            |
| Limited quantities:   | 1 L                                      |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable                           |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1993                                   |
| <b>14.2 UN proper shipping name:</b>  | FLAMMABLE LIQUID, N.O.S. (Ethyl acetate) |
| <b>14.3 Transport hazard class(es):</b>   | 3  |
| Labels:   | 3  |
| <b>14.4 Packing group:</b>  | II                                       |
| <b>14.5 Environmental hazards:</b>  | No                                       |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274                                      |
| EmS Codes:  | F-E, S-E                                 |
| Physico-Chemical properties:  | see section 9                            |
| Limited quantities:   | 1 L                                      |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable                           |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2017:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1993                                   |
| <b>14.2 UN proper shipping name:</b>  | FLAMMABLE LIQUID, N.O.S. (Ethyl acetate) |
| <b>14.3 Transport hazard class(es):</b>   | 3  |
| Labels:   | 3  |
| <b>14.4 Packing group:</b>  | II                                       |
| <b>14.5 Environmental hazards:</b>  | No                                       |
| <b>14.6 Special precautions for user</b>  |  |
| Physico-Chemical properties:  | see section 9                            |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Non-applicable                           |

**SECTION 15: REGULATORY INFORMATION**

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**SECTION 15: REGULATORY INFORMATION (continued)**

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

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains Ethanol, Ethanol.

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: Ethanol (Product-type 1, 2, 4, 6) ; Propan-2-ol (Product-type 1, 2, 4)

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

**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

**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:**

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.:**

Non-applicable

**Texts of the legislative phrases mentioned in section 2:**

H319: Causes serious eye irritation

H336: May cause drowsiness or dizziness

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:**

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 2: H225 - Highly flammable liquid and vapour

Skin Irrit. 2: H315 - Causes skin irritation

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

Flam. Liq. 2: Calculation method (2.6.4.3)

**Advice related to training:**

Minimal 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:**

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**SECTION 16: OTHER INFORMATION (continued)**

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: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol–water partition coefficient  
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -