




**Maston - MARK Marking spray - Merkkäusvärisspray
401001 - 401008**

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

- 1.1 Product identifier:** Maston - MARK Marking spray - Merkkäusvärisspray
401001 - 401008
UFI: KCN0-E02V-7009-MQD2
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Paint
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:**
Maston Oy
Teollisuustie 10
FI 02880 Veikkola - Finland
Phone.: +358 20 7188 580 - Fax: +358 20 7188 599
maston@maston.fi
www.maston.fi
- 1.4 Emergency telephone number:** Myrkytystietokeskus (Giftinformationcentralen) PL 340 00029 HUS FINLAND +358(0)9471977

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.
Aerosol 1: Pressurised container: May burst if heated., H229
Aerosol 1: Flammable aerosols, Category 1, H222
Eye Irrit. 2: Eye irritation, Category 2, H319
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:**
Aerosol 1: H229 - Pressurised container: May burst if heated
Aerosol 1: H222 - Extremely flammable aerosol
Eye Irrit. 2: H319 - Causes serious eye irritation
STOT SE 3: H336 - May cause drowsiness or dizziness
- Precautionary statements:**
P102: Keep out of reach of children
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P211: Do not spray on an open flame or other ignition source
P251: Do not pierce or burn, even after use
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F
- Supplementary information:**
EUH066: Repeated exposure may cause skin dryness or cracking
- Substances that contribute to the classification**
Acetone (CAS: 67-64-1); 1-ethoxypropan-2-ol (CAS: 1569-02-4)
- 2.3 Other hazards:**
Product fails to meet PBT/vPvB criteria
DK. Mal Code 3-1

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

** Changes with regards to the previous version

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

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Aerosol

Components:

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

Identification	Chemical name/Classification	Concentration
CAS: 67-64-1 EC: 200-662-2 Index: 606-001-00-8 REACH: 01-2119471330-49-XXXX	Acetone⁽¹⁾ ATP CLP00	30 - <50 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger	
CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH: 01-2119474691-32-XXXX	Butane⁽¹⁾ ATP CLP00	10 - <20 %
	Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	
CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH: 01-2119486944-21-XXXX	Propane⁽¹⁾ ATP CLP00	10 - <20 %
	Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	
CAS: 64-17-5 EC: 200-578-6 Index: 603-002-00-5 REACH: 01-2119457610-43-XXXX	Ethanol⁽¹⁾ ATP CLP00	5 - <10 %
	Regulation 1272/2008 Flam. Liq. 2: H225 - Danger	
CAS: 1569-02-4 EC: 216-374-5 Index: 603-177-00-8 REACH: 01-2119462792-32-XXXX	1-ethoxypropan-2-ol⁽¹⁾ ATP CLP00	1 - <5 %
	Regulation 1272/2008 Flam. Liq. 3: H226; STOT SE 3: H336 - Warning	
CAS: 141-78-6 EC: 205-500-4 Index: 607-022-00-5 REACH: 01-2119475103-46-XXXX	Ethyl acetate⁽¹⁾ ATP CLP00	0,1 - <1 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger	
CAS: 709014-50-6 EC: Non-applicable Index: Non-applicable REACH: Non-applicable	C9-C11 Aliphatic polyether⁽¹⁾ Self-classified	0,025 - <0,05 %
	Regulation 1272/2008 Skin Sens. 1: H317 - Warning	

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

** Changes with regards to the previous version

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.

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SECTION 4: FIRST AID MEASURES (continued)

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:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). 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 ground 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

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

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SECTION 7: HANDLING AND STORAGE (continued)

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 °C
Maximum Temp.: 50 °C
Maximum time: 60 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

Identification		Environmental limits		
Acetone CAS: 67-64-1 EC: 200-662-2	IOELV (8h)	500 ppm	1210 mg/m ³	
	IOELV (STEL)			
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	IOELV (8h)	200 ppm	734 mg/m ³	
	IOELV (STEL)	400 ppm	1468 mg/m ³	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	186 mg/kg	Non-applicable
	Inhalation	Non-applicable	2420 mg/m ³	1210 mg/m ³	Non-applicable
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 ³	950 mg/m ³	Non-applicable
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	74 mg/kg	Non-applicable
	Inhalation	500 mg/m ³	Non-applicable	211 mg/m ³	Non-applicable
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 ³	1468 mg/m ³	734 mg/m ³	734 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	200 mg/m ³	Non-applicable
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 ³	114 mg/m ³	Non-applicable
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	Oral	Non-applicable	Non-applicable	14 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	44,3 mg/kg	Non-applicable
	Inhalation	300 mg/m ³	Non-applicable	127 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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 ³	734 mg/m ³	367 mg/m ³	367 mg/m ³

PNEC:

Identification					
Acetone CAS: 67-64-1 EC: 200-662-2	STP	100 mg/L	Fresh water	10,6 mg/L	
	Soil	29,5 mg/kg	Marine water	1,06 mg/L	
	Intermittent	21 mg/L	Sediment (Fresh water)	30,4 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	3,04 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	
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	STP	1250 mg/L	Fresh water	10 mg/L	
	Soil	1,97 mg/kg	Marine water	1 mg/L	
	Intermittent	19 mg/L	Sediment (Fresh water)	37,6 mg/kg	
	Oral	142 g/kg	Sediment (Marine water)	3,76 mg/kg	
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	

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

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Non-applicable

D.- Ocular and facial protection

Non-applicable

E.- Body protection

Non-applicable

F.- Additional emergency measures

It is not necessary to take additional emergency measures.

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):	89,77 % weight
V.O.C. density at 20 °C:	612,2 kg/m ³ (612,2 g/L)
Average carbon number:	3,01
Average molecular weight:	60,11 g/mol

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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:	Aerosol
Appearance:	Not available
Colour:	Not available
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	-42 - 133 °C (Propellant)
Vapour pressure at 20 °C:	359970 Pa
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	682 kg/m ³
Relative density at 20 °C:	0,68
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
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:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Recipient pressure:	359970 Pa (3,6 bar)
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	-60 °C (Propellant)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	365 °C (Propellant)
Lower flammability limit:	0,8 % Volume
Upper flammability limit:	12 % Volume

Explosive:

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

9.2 Other information:

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

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SECTION 10: STABILITY AND REACTIVITY (continued)

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	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:

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 (CO₂), 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, as it does not 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, as it does not contain substances classified as dangerous for this effect. 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 dangerous 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: 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.
IARC: Non-applicable
- 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. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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
	LD50 oral	LD50 dermal	
Acetone CAS: 67-64-1 EC: 200-662-2	LD50 oral	5800 mg/kg	Rat
	LD50 dermal	7426 mg/kg	Rabbit
	LC50 inhalation	76 mg/L (4 h)	Rat
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
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	LD50 oral	4400 mg/kg	Rat
	LD50 dermal	8100 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Butane CAS: 106-97-8 EC: 203-448-7	LD50 oral	Non-applicable	
	LD50 dermal	Non-applicable	
	LC50 inhalation	658 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	

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
	LC50	EC50		
Acetone CAS: 67-64-1 EC: 200-662-2	LC50	5540 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	23.5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	3400 mg/L (48 h)	Chlorella pyrenoidosa	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
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	LC50	4600 mg/L (96 h)	Leuciscus idus	Fish
	EC50	21100 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
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

12.2 Persistence and degradability:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Acetone CAS: 67-64-1 EC: 200-662-2	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	0.96	% Biodegradable	96 %
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 %
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	BOD5	2.15 g O ₂ /g	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	78 %
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	BOD5	1.36 g O ₂ /g	Concentration	100 mg/L
	COD	1.69 g O ₂ /g	Period	14 days
	BOD5/COD	0.81	% Biodegradable	83 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Parameter	Value
Acetone CAS: 67-64-1 EC: 200-662-2	BCF	1
	Pow Log	-0.24
	Potential	Low
Butane CAS: 106-97-8 EC: 203-448-7	BCF	33
	Pow Log	2.89
	Potential	Moderate
Propane CAS: 74-98-6 EC: 200-827-9	BCF	13
	Pow Log	2.86
	Potential	Low
Ethanol CAS: 64-17-5 EC: 200-578-6	BCF	3
	Pow Log	-0.31
	Potential	Low
1-ethoxypropan-2-ol CAS: 1569-02-4 EC: 216-374-5	BCF	1
	Pow Log	1
	Potential	Low
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	BCF	30
	Pow Log	0.73
	Potential	Moderate

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
Acetone CAS: 67-64-1 EC: 200-662-2	Koc	1	Henry	2,93 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,304E-2 N/m (25 °C)	Moist soil	Yes
Butane CAS: 106-97-8 EC: 203-448-7	Koc	900	Henry	96258,75 Pa·m ³ /mol
	Conclusion	Low	Dry soil	Yes
	Surface tension	1,187E-2 N/m (25 °C)	Moist soil	Yes
Propane CAS: 74-98-6 EC: 200-827-9	Koc	460	Henry	71636,78 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7,02E-3 N/m (25 °C)	Moist soil	Yes
Ethanol CAS: 64-17-5 EC: 200-578-6	Koc	1	Henry	4,61E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,339E-2 N/m (25 °C)	Moist soil	Yes
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	Koc	59	Henry	13,58 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,324E-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:

- CONTINUED ON NEXT PAGE -

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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)
16 05 04*	gases in pressure containers (including halons) containing hazardous substances	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:

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 2019 and RID 2019:



- | | |
|---|---------------------|
| 14.1 UN number: | UN1950 |
| 14.2 UN proper shipping name: | AEROSOLS, flammable |
| 14.3 Transport hazard class(es): | 2 |
| Labels: | 2.1 |
| 14.4 Packing group: | N/A |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 190, 327, 344, 625 |
| Tunnel restriction code: | D |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 1 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 38-16:

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SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN1950
- 14.2 UN proper shipping name:** AEROSOLS, flammable
- 14.3 Transport hazard class(es):** 2
Labels: 2.1
- 14.4 Packing group:** N/A
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
Special regulations: 63, 959, 190, 277, 327, 344
EmS Codes: F-D, S-U
Physico-Chemical properties: see section 9
Limited quantities: 1 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 2019:



- 14.1 UN number:** UN1950
- 14.2 UN proper shipping name:** AEROSOLS, flammable
- 14.3 Transport hazard class(es):** 2
Labels: 2.1
- 14.4 Packing group:** N/A
- 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:

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 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)
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
P3a		150	500

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

Regulation (EU) No 98/2013 of the European Parliament and of the Council of 15 January 2013 on the marketing and use of explosives precursors: Contains Acetone. Product under the provisions of Article 9

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.

- CONTINUED ON NEXT PAGE -



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SECTION 15: REGULATORY INFORMATION (continued)

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.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3):

- New declared substances
C9-C11 Aliphatic polyether (709014-50-6)

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation
H336: May cause drowsiness or dizziness
H229: Pressurised container: May burst if heated
H222: Extremely flammable aerosol

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. Gas 1: H220 - Extremely flammable gas
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Flam. Liq. 3: H226 - Flammable liquid and vapour
Press. Gas: H280 - Contains gas under pressure, may explode if heated
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

Eye Irrit. 2: Calculation method
STOT SE 3: Calculation method
Aerosol 1: Calculation method
Aerosol 1: Calculation method

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:

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 -