

C2 121 - Butan-1-ol

Date of compilation: 04/02/2021

Revised: 21/11/2022

Version: 2 (Replaced 1)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier:** butan-1-ol

CAS: 71-36-3
EC: 200-751-6
Index: 603-004-00-6
REACH: 01-2119484630-38-XXXX

Other means of identification:

Not relevant

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

Relevant uses (Professional users): Solvent
Relevant uses (Industrial user): Solvent
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:

ECP d.o.o.
Brnčičeva 45
1231 Ljubljana - Slovenia
Phone: +386 1 562 05 84
office@ecp.eu
www.ecp.si

1.4 Emergency telephone number: 112**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.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 3: Flammable liquids, Category 3, H226
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
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:**

H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
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/respiratory protection/eye protection/protective footwear.
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.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment.

2.3 Other hazards:*** Changes with regards to the previous version*

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substance:**

Chemical description: Organic substance

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

Identification	Chemical name/Classification	Concentration
CAS: 71-36-3 EC: 200-751-6 Index: 603-004-00-6 REACH: 01-2119484630-38-XXXX	butan-1-ol Self-classified	99.7 - <100%
	Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	

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

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
butan-1-ol CAS: 71-36-3 EC: 200-751-6	LD50 oral	500 mg/kg	
	LD50 dermal	Not relevant	
	LC50 inhalation vapour	Not relevant	

3.2 Mixture:

Not relevant

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:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

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:

Not relevant

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SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:****Suitable extinguishing media:**

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

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/EEC.

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:

Wear protective equipment. Keep unprotected persons away. See section 8.

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:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

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.

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SECTION 7: HANDLING AND STORAGE (continued)**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 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.- Specific storage requirements**

Store in a cool, dry, well-ventilated location

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):

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	310 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Oral	Not relevant	Not relevant	1,562 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	3,125 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	55,357 mg/m ³	155 mg/m ³

PNEC:

Identification					
butan-1-ol CAS: 71-36-3 EC: 200-751-6	STP	2476 mg/L	Fresh water	0,082 mg/L	
	Soil	0,017 mg/kg	Marine water	0,008 mg/L	
	Intermittent	2,25 mg/L	Sediment (Fresh water)	0,324 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,032 mg/kg	

8.2 Exposure controls:

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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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 (Filter type: A)	 CAT III	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	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	 CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

D.- Eye and face protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	 CAT II	EN ISO 16321-1:2022 + EN ISO 16321-3:2022 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	Antistatic and fireproof protective clothing	 CAT III	EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN ISO 18526-(1,2,3,4):2020 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.
 Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	 CAT III	EN ISO 13287:2019 EN ISO 20345:2022	Replace boots at any sign of deterioration.

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

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:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to 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 °C:	810,34 kg/m ³ (810,34 g/L)
Average carbon number:	4

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Average molecular weight: 74,1 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:	Not relevant *
Colour:	Not relevant *
Odour:	Not relevant *
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	118 °C
Vapour pressure at 20 °C:	945 Pa
Vapour pressure at 50 °C:	5790,5 Pa (5,79 kPa)
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	810,3 kg/m ³
Relative density at 20 °C:	0,81
Dynamic viscosity at 20 °C:	2,95 mPa·s
Kinematic viscosity at 20 °C:	3,64 mm ² /s
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	-90 °C

Flammability:

Flash Point:	29 °C
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	343 °C
Lower flammability limit:	1,4 % Volume
Upper flammability limit:	11,2 % Volume

Particle characteristics:

Median equivalent diameter:	Not relevant *
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9.2 Other information:**Information with regard to physical hazard classes:**

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	33,26 kJ/g

*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)

Aerosols-total percentage (by mass) of flammable components: Not relevant *

Other safety characteristics:

Surface tension at 20 °C: Not relevant *

Refraction index: Not relevant *

*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 from Safety Data Sheet.

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

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 hazard classes as defined in Regulation (EC) No 1272/2008:****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: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

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

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

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

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Not relevant
- 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:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

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: 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.

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:

Not relevant

Product-specific toxicological information:

Acute toxicity		Genus
LD50 dermal	3400 mg/kg	Rabbit
LC50 inhalation vapour	24 mg/L (4 h)	Rat

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
butan-1-ol CAS: 71-36-3 EC: 200-751-6	LD50 oral	500 mg/kg	
	LD50 dermal	3400 mg/kg	Rabbit
	LC50 inhalation vapour	24 mg/L (4 h)	Rat

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

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.

12.1 Toxicity:

Product-specific aquatic toxicity:

Acute toxicity		Species	Genus
LC50	1740 mg/L (96 h)	Not relevant	Fish
EC50	1983 mg/L (48 h)	Not relevant	Crustacean
EC50	500 mg/L (72 h)	Not relevant	Algae

Substance-specific aquatic toxicity:

Acute toxicity:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
	LC50	1740 mg/L (96 h)		
butan-1-ol CAS: 71-36-3 EC: 200-751-6	EC50	1983 mg/L (48 h)	Pimephales promelas	Fish
	EC50	500 mg/L (96 h)	Daphnia magna	Crustacean
	EC50	500 mg/L (96 h)	Scenedesmus subspicatus	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	Not relevant		
butan-1-ol CAS: 71-36-3 EC: 200-751-6	NOEC	4,1 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
	BOD5	1,71 g O2/g	Concentration	Not relevant
butan-1-ol CAS: 71-36-3 EC: 200-751-6	COD	2,46 g O2/g	Period	19 days
	BOD5/COD	0,7	% Biodegradable	98 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
	BCF	1
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Pow Log	0.88
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc	2.44	Henry	5,39E-2 Pa·m³/mol
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,567E-2 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances	Hazardous

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

HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, 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-hazardous 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

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SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2025 and RID 2025:



- 14.1 UN number or ID number:** UN1120
- 14.2 UN proper shipping name:** BUTANOLS
- 14.3 Transport hazard class(es):** 3
Labels: 3
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
Special regulations: Not relevant
Tunnel restriction code: D/E
Physico-Chemical properties: see section 9
Limited quantities: 5 L
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 42-24:



- 14.1 UN number or ID number:** UN1120
- 14.2 UN proper shipping name:** BUTANOLS
- 14.3 Transport hazard class(es):** 3
Labels: 3
- 14.4 Packing group:** III
- 14.5 Marine pollutant:** No
- 14.6 Special precautions for user**
Special regulations: 223
EmS Codes: F-E, S-D
Physico-Chemical properties: see section 9
Limited quantities: 5 L
Segregation group: Not relevant
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2026:



- 14.1 UN number or ID number:** UN1120
- 14.2 UN proper shipping name:** BUTANOLS
- 14.3 Transport hazard class(es):** 3
Labels: 3
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
Physico-Chemical properties: see section 9
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

SECTION 15: REGULATORY INFORMATION

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

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SECTION 15: REGULATORY INFORMATION (continued)

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000,000	50000,000

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:**

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 (COMMISSION REGULATION (EU) 2020/878).

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

COMMISSION REGULATION (EU) 2020/878

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

- Precautionary statements

Texts of the legislative phrases mentioned in section 2:

H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

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: H302 - Harmful if swallowed.

Eye Dam. 1: H318 - Causes serious eye damage.

Flam. Liq. 3: H226 - 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.

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:

- CONTINUED ON NEXT PAGE -

**C2 121 - Butan-1-ol**

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SECTION 16: OTHER INFORMATION (continued)

<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

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 -