

31/01/2024 5 25/08/2020

Product name: NZYMidiprep

Catalogue reference(s): MB05003, 5 columns

MB05004, 20 columns

MB05005, 3 x 20 columns

Components	MB05003	MB05004	MB05005	Safety Information	Unique Formula Identifier (UFI)
Buffer M1	1 x 25 mL	1 x 90 mL	3 x 90 mL	Not Hazardous *	
Buffer M2	1 x 25 mL	1 x 90 mL	3 x 90 mL	See specific SDS	DV00-D0PR-700U-FJ5D
Buffer M3	1 x 25 mL	1 x 90 mL	3 x 90 mL	See specific SDS	1S00-W00A-X00C-S6KA
Buffer MEQ	1 x 15 mL	1 x 60 mL	3 x 60 mL	See specific SDS	6Y00-W0D4-J00A-3VRF
Buffer MW	1 x 60 mL	2 x 120 mL	6 x 120 mL	See specific SDS	7110-E02H-U00U-S7AH
Buffer ME	1 x 30 mL	1 x 120 mL	3 x 120 mL	See specific SDS	5410-W0RX-500A-EJWK
RNase A	1 x 2 mg	1 x 8 mg	3 x 8 mg	See specific SDS	
NZYtech Plasmid Midi columns	5 columns	4 x 5 columns	3 x 20 columns	Not Hazardous *	

*The component mentioned above is not classified as hazardous according to CLP Regulation (EC) No 1272/2008. Consequently, does not require a Safety Data Sheet (SDS), according to Regulation (EC) No 1907/2006, emended by Regulation (EC) No 2020/878.

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	MD030 - Duilei M2			
ate of o	compilation: 12/08/2020 Revised: 25/10/2023 Version: 4 (Replaced 3)			
SECT	TION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING			
1.1	Product identifier: MB050 - Buffer M2			
	Other means of identification:			
	Non-applicable			
1.2	Relevant identified uses of the substance or mixture and uses advised against:			
	Relevant uses: Laboratory. For professional users 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:			
	NZYtech, Lda Estrada do Paco do Lumiar Campus do Lumiar - Edif. E, r/c 1649-038 Lisboa - Lisboa - Portugal Phone: +351 213643514 info@nzytech.com www.nzytech.com			
1.4	Emergency telephone number: National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.	r		
SECT	TION 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.			
2.2	Eye Dam. 1: Serious eye damage, Category 1, H318 Met. Corr. 1: Corrosive to metals, Category 1, H290 Skin Corr. 1: Skin corrosion, Category 1, H314 Label elements:			
	CLP Regulation (EC) No 1272/2008:			
	Labelling of packages where the contents do not exceed 125 ml:			
	Danger			
	Hazard statements:			
	Skin Corr. 1: H314 - Causes severe skin burns and eye damage.			
	Precautionary statements:			
	 P264: Wash thoroughly after handling. P280: Wear protective gloves/face protection/protective clothing/protective footwear. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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 do. Continue rinsing. P310: Immediately call a poison center/doctor. Substances that contribute to the classification 	y to		
	sodium hydroxide			
	UFI: DV00-D0PR-700U-FJ5D			
2.3	Other hazards:			
	Product does not meet PBT/vPvB criteria			

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

** Changes with regards to the previous version

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Date of compilation: 12/08/2020 Revised: 25/10/2023 Version: 4 (Replaced 3) SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS 3.1 Substance: Non-applicable 3.2 Mixture: Chemical description: Mixture of substances **Components:** In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains: Identification Chemical name/Classification Concentration CAS 151-21-3 Sodium dodecyl sulphate (powder)(1) Self-classified FC: 205-788-1 1 - <2,5 % Acute Tox. 4: H302+H332; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Flam. Sol. Index: Non-applicable Regulation 1272/2008 REACH: 01-2119489461-32-2: H228; Skin Irrit. 2: H315; STOT SE 3: H335 - Dange XXXX CAS: 1310-73-2 Self-classified sodium hydroxide⁽¹⁾ EC 215-185-5 <1 % Index: 011-002-00-6 REACH: 01-2119457892-27-A Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1A: H314 - Danger Regulation 1272/2008 XXXX (1) Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878 To obtain more information on the hazards of the substances consult sections 11, 12 and 16. Other information:

Identification Specific concentration limit sodium hydroxide % (w/w) >=0,1: Met. Corr. 1 - H290 CAS: 1310-73-2 % (w/w) >=5: Skin Corr. 1A - H314 EC: 215-185-5 2<= % (w/w) <5: Skin Corr. 1B - H314 0,5<= % (w/w) <2: Skin Irrit. 2 - H315 % (w/w) >=2: Eye Dam. 1 - H318 0,5<= % (w/w) <2: Eye Irrit. 2 - H319 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	Acut	Genus	
Sodium dodecyl sulphate (powder)	LD50 oral	Non-applicable	
CAS: 151-21-3	LD50 dermal	Non-applicable	
EC: 205-788-1	LC50 inhalation	11 mg/L (ATEi)	

SECTION 4: FIRST AID MEASURES

4.1 **Description of first aid measures:**

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

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:

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SECTION 4: FIRST AID MEASURES (continued)			
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through			

stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. 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:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

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

Additional provisions:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

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

6.2 Environmental precautions:

It is recommended to avoid environmental spillage of both the product and its container.

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

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Date of compilation: 12/08/2020 Revised: 25/10/2023 Version: 4 (Replaced 3) SECTION 7: HANDLING AND STORAGE (continued) 7.1 Precautions for safe handling: A.- General precautions for safe use Comply with the current legislation concerning the prevention of industrial risks. 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. KEEP ONLY IN ORIGINAL PACKAGING. B.- Technical recommendations for the prevention of fires and explosions It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided. C.- Technical recommendations on general occupational hygiene Do not eat or drink during the process, washing hands afterwards with suitable cleaning products. D.- Technical recommendations to prevent environmental risks It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3) 7.2 Conditions for safe storage, including any incompatibilities: A.- Technical measures for storage 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):

		Short e	xposure	Long e	xposure
Identification		Systemic	Local	Systemic	Local
Sodium dodecyl sulphate (powder)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 151-21-3	Dermal	Non-applicable	Non-applicable	4060 mg/kg	Non-applicable
EC: 205-788-1	Inhalation	Non-applicable	Non-applicable	285 mg/m ³	Non-applicable
sodium hydroxide	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1310-73-2	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 215-185-5	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m³

DNEL (General population):

		Short	exposure	Long	exposure
Identification		Systemic	Local	Systemic	Local
Sodium dodecyl sulphate (powder)	Oral	Non-applicable	Non-applicable	24 mg/kg	Non-applicable
CAS: 151-21-3	Dermal	Non-applicable	Non-applicable	2440 mg/kg	Non-applicable
EC: 205-788-1	Inhalation	Non-applicable	Non-applicable	85 mg/m ³	Non-applicable
sodium hydroxide	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1310-73-2	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 215-185-5	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m ³
PNEC:					

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SECTI	ECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)				
	Identification				
	Sodium dodecyl sulphate (powder)	STP	1,35 mg/L	Fresh water	0,176 mg/L
	CAS: 151-21-3	Soil	1,29 mg/kg	Marine water	0,018 mg/L
	EC: 205-788-1	Intermittent	0,055 mg/L	Sediment (Fresh water)	6,97 mg/kg
		Oral	Non-applicable	Sediment (Marine water)	0,697 mg/kg

8.2 Exposure controls:

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

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

B.- Respiratory protection

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

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)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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

D.- Eye and face protection

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

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory complete body protection	Disposable clothing for protection against chemical risks		EN 13034:2005+A1:2009 EN 168:2002 EN ISO 13982- 1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 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		EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

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

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:

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SECT	FION 8: EXPOSURE CONTROLS/PE	RSONAL PROTECTION (continued)
	V.O.C. (Supply): V.O.C. density at 20 °C: Average carbon number: Average molecular weight:	0 % weight 0 kg/m ³ (0 g/L) Non-applicable Non-applicable
SECT	FION 9: PHYSICAL AND CHEMICAL	PROPERTIES
9.1	Information on basic physical and	chemical properties:
	For complete information see the produced	ct datasheet.
	Appearance:	
	Physical state at 20 °C:	Liquid
	Appearance:	Not available
	Colour:	Colourless
	Odour:	Not available
	Odour threshold:	Non-applicable *
	Volatility:	
	Boiling point at atmospheric pressure:	100 °C
	Vapour pressure at 20 °C:	2350 Pa
	Vapour pressure at 50 °C:	12381,01 Pa (12,38 kPa)
	Evaporation rate at 20 °C:	Non-applicable *
	Product description:	
	Density at 20 °C: Relative density at 20 °C:	1036,9 kg/m ³
	Dynamic viscosity at 20 °C:	1,037 Non-applicable *
	Kinematic viscosity at 20 °C:	Non-applicable *
	Kinematic viscosity at 40 °C:	Non-applicable *
	Concentration:	Non-applicable *
	pH:	12 - 13
	Vapour density at 20 °C:	Non-applicable *
	Partition coefficient n-octanol/water 20	
	Solubility in water at 20 °C:	Non-applicable *
	Solubility properties:	Non-applicable *
	Decomposition temperature:	Non-applicable *
	Melting point/freezing point:	Non-applicable *
	Flammability:	
	Flash Point:	Non Flammable (>60 °C)
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	Non-applicable *
	Lower flammability limit:	Non-applicable *
	Upper flammability limit:	Non-applicable *
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable
9.2	Other information:	
	Information with regard to physic	
	*Not relevant due to the nature of the product,	not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CH	HEMICAL PROPERTIES	(continued)
Explosive properties:		Non-applicable *
Oxidising properties:		Non-applicable *
Corrosive to metals:		H290 May be corrosive to metals.
Heat of combustion:		Non-applicable *
Aerosols-total percentage (by components:	mass) of flammable	Non-applicable *
Other safety characteristi	cs:	
Surface tension at 20 °C:		Non-applicable *
Refraction index:		Non-applicable *
*Not relevant due to the nature of t	the product, not providing inform	mation 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
Precaution	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Not applicable	Not applicable

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:

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, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.
- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract
- C- Contact with the skin and the eyes (acute effect):

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	pilation: 12/08/2020 Revised: 25/10/2023 N 11: TOXICOLOGICAL INFORMATION (continue	Version: 4 (Re	placed 3)	
	 Contact with the skin: Above all, skin contact may oc For more information on the secondary effects see secti Contact with the eyes: Produces serious eye damage CMR effects (carcinogenicity, mutagenicity and toxicity) 	ccur as fabrics o ion 2. e after contact.		ing in burns
 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 hazardous 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 a 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 a 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: 				
F-	 Respiratory: Based on available data, the classification hazardous with sensitising effects. For more information Skin: Based on available data, the classification criter hazardous for this effect. For more information see sect Specific target organ toxicity (STOT) - single exposure: 	n see section 3. ria are not met,		
G-	Based on available data, the classification criteria are no inhalation. For more information see section 3. Specific target organ toxicity (STOT)-repeated exposure		r, it contains substances classified as ha	zardous for
 Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not n 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. Aspiration hazard: 				
0+	Based on available data, the classification criteria are no this effect. For more information see section 3. her information:	ot met, as it doe	s not contain substances classified as ha	zardous for
	n-applicable			
	ecific toxicology information on the substances:			
	Identification		Acute toxicity	Genus
				Dat

Acut	te toxicity	Genus
LD50 oral	1200 mg/kg	Rat
LD50 dermal	>2000 mg/kg	
LC50 inhalation	11 mg/L (ATEi)	
LD50 oral	>2000 mg/kg	
LD50 dermal	>2000 mg/kg	
LC50 inhalation	>5 mg/L	
	LD50 oral LD50 dermal LC50 inhalation LD50 oral LD50 dermal	LD50 dermal >2000 mg/kg LC50 inhalation 11 mg/L (ATEi) LD50 oral >2000 mg/kg LD50 dermal >2000 mg/kg

Acute Toxicity Estimate (ATE mix):

	ATE mix		
Oral 120000 mg/kg (Calculation method)		0 %	
Dermal >2000 mg/kg (Calculation method)		Non-applicable	
Inhalation 1100 mg/L (4 h) (Calculation method)		0 %	

11.2 Information on other hazards:

Endocrine disrupting properties

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

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

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SECTI	ON 12: ECOLOGICAL INFORMATION (continued)					
effect. I	on available data, the classification criteria are For more information see section 3. Toxicity:	e not met. Howe	ver, it does contain substa	nces classified as hazardo	us for this		
1	Acute toxicity: Identification		Concentration	Species	Genus		
	Sodium dodecyl sulphate (powder)	LC50	>10 - 100 mg/L (96 h)		Fish		
	CAS: 151-21-3	EC50	>10 - 100 mg/L (48 h)		Crustacean		
	EC: 205-788-1	EC50	>10 - 100 mg/L (72 h)		Algae		
	sodium hydroxide	LC50	189 mg/L (48 h)	Leuciscus idus	Fish		
	CAS: 1310-73-2	EC50	33 mg/L	Crangon crangon	Crustacean		
	EC: 215-185-5	EC50	Non-applicable				
12.2	Persistence and degradability:						
ļ	Not available						
12.3	Bioaccumulative potential:						
l	Not available						
12.4	Mobility in soil:						
í	Not available						
12.5	Results of PBT and vPvB assessment:						
	Product does not meet PBT/vPvB criteria						
1	Product does not meet PBI/VPVB criteria						
	Endocrine disrupting properties:						

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)
	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):

HP8 Corrosive

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION **

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

** Changes with regards to the previous version

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SECTION 14: TRANSPORT	INFORMATION ** (continued	
14.2 14.3	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels: Packing group:	UN3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (sodium hydroxide) 8 8 II
14.5	Environmental hazards: Special precautions for user Special regulations: Tunnel restriction code: Physico-Chemical properties: Limited quantities:	No 274 E see section 9 1 L
14.7	Maritime transport in bulk according to IMO instruments:	Non-applicable
Transport of dangero	us goods by sea:	
With regard to IMDG 40	-20:	
<u>í</u> 14.2	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels:	UN3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (sodium hydroxide) 8 8
8 14.5	Packing group: Marine pollutant: Special precautions for user	II No
14.7	Special regulations: EmS Codes: Physico-Chemical properties: Limited quantities: Segregation group: Maritime transport in bulk	274 F-A, S-B see section 9 1 L SGG18 Non-applicable
	according to IMO instruments:	
Transport of dangero		
With regard to IATA/ICA	AO 2023:	
14.2	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels:	UN3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (sodium hydroxide) 8 8
14.5	Packing group: Environmental hazards: Special precautions for user	II No
14.7	Physico-Chemical properties: Maritime transport in bulk according to IMO instruments:	see section 9 Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

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SECT	TION 15: REGULATORY IN	NFORMATION (continue	d)
	Article 95, REGULATION (EU	I) No 528/2012: Non-applic	able
		, , , , , , , , , , , , , , , , , , , ,	rt and export of hazardous chemical products: Non-applicable
	Seveso III:		t and export of hazardous chemical products. Non applicable
	Non-applicable	liantion and the use of a	
	etc):	alisation and the use of c	ertain dangerous substances and mixtures (Annex XVII REACH,
	Shall not be used in: —ornamental articles intend and ashtrays, —tricks and jokes,	rticipants, or any article inte	r effects by means of different phases, for example in ornamental lamps ended to be used as such, even with ornamental aspects.
			is safety data sheet as a basis for conducting workplace-specific risk
			vention measures for the handling, use, storage and disposal of this
	-	d by costorial logislation	
15 7	The product could be affecte Chemical safety assessm		
15.2	-		
	The supplier has not carried		salety.
SECT	TION 16: OTHER INFORM	ATION **	
	has been designed in second		country where the product is placed on the market. This safety data sheet
	 (COMMISSION REGULATION Modifications related to a Substances that contribute to New declared substances sodium hydroxide (13) CLP Regulation (EC) No 127 Hazard statements Precautionary statements Precautionary statements Precautionary statements UN number Packing group Texts of the legislative pl H290: May be corrosive to n H314: Causes severe skin bu H318: Causes serious eye da Texts of the legislative pl The phrases indicated do no individual components which CLP Regulation (EC) No 12 Acute Tox. 4: H302+H332 - Aquatic Chronic 3: H412 - H Eye Dam. 1: H318 - Causes 	I (EU) 2020/878). the previous Safety Data o the classification (SECTIO s 10-73-2) 2/2008 (SECTION 2, SECTIO s (SECTION 14): hrases mentioned in sect hetals. urns and eye damage. amage. hrases mentioned in sect t refer to the product itself; a ppear in section 3 L272/2008: Harmful if swallowed or if in armful to aquatic life with lo serious eye damage.	<pre>to the compilation of safety data sheets of Regulation (EC) No 1907/2006 Sheet which concerns the ways of managing risks.: N 2): DN 16): tion 2: tion 3: they are present merely for informative purposes and refer to the nhaled.</pre>
	 (COMMISSION REGULATION Modifications related to a Substances that contribute t New declared substances sodium hydroxide (13) CLP Regulation (EC) No 1277 Hazard statements Precautionary statement: TRANSPORT INFORMATION UN number Packing group Texts of the legislative pl H290: May be corrosive to n H314: Causes severe skin bu H318: Causes serious eye da Texts of the legislative pl The phrases indicated do no individual components which CLP Regulation (EC) No 1 Acute Tox. 4: H302+H332 - Aquatic Chronic 3: H412 - H Eye Dam. 1: H318 - Causes Flam. Sol. 2: H228 - Flamma Met. Corr. 1: H290 - May be Skin Corr. 1A: H314 - Causes 	I (EU) 2020/878). the previous Safety Data o the classification (SECTIO 5 10-73-2) 2/2008 (SECTION 2, SECTIO s (SECTION 14): hrases mentioned in sect hetals. urns and eye damage. amage. hrases mentioned in sect t refer to the product itself; appear in section 3 L272/2008: Harmful if swallowed or if in armful to aquatic life with loc serious eye damage. able solid. corrosive to metals. s severe skin burns and eye skin irritation.	<pre>co the compilation of safety data sheets of Regulation (EC) No 1907/2006 Sheet which concerns the ways of managing risks.: N 2): DN 16): tion 2: tion 3: they are present merely for informative purposes and refer to the nhaled. ong lasting effects.</pre>
	 (COMMISSION REGULATION Modifications related to a Substances that contribute to New declared substances sodium hydroxide (13) CLP Regulation (EC) No 1277 Hazard statements Precautionary statements Precaution (EC) No 127 Acute Tox. 4: H302+H332 - Aquatic Chronic 3: H412 - H Eye Dam. 1: H318 - Causes Flam. Sol. 2: H228 - Flamma Met. Corr. 1: H290 - May be Skin Corr. 1A: H314 - Causes Stot S 3: H335 - May cause 	I (EU) 2020/878). the previous Safety Data o the classification (SECTIO s 10-73-2) 2/2008 (SECTION 2, SECTIO s (SECTION 14): hrases mentioned in sect netals. urns and eye damage. amage. hrases mentioned in sect t refer to the product itself; appear in section 3 L272/2008: Harmful if swallowed or if in armful to aquatic life with lo serious eye damage. able solid. corrosive to metals. s severe skin burns and eye skin irritation. se respiratory irritation.	<pre>co the compilation of safety data sheets of Regulation (EC) No 1907/2006 Sheet which concerns the ways of managing risks.: N 2): DN 16): tion 2: tion 3: they are present merely for informative purposes and refer to the nhaled. ong lasting effects.</pre>
	 (COMMISSION REGULATION Modifications related to a Substances that contribute t New declared substances sodium hydroxide (13) CLP Regulation (EC) No 1277 Hazard statements Precautionary statement: TRANSPORT INFORMATION UN number Packing group Texts of the legislative pl H290: May be corrosive to n H314: Causes severe skin bu H318: Causes serious eye da Texts of the legislative pl The phrases indicated do no individual components which CLP Regulation (EC) No 1 Acute Tox. 4: H302+H332 - Aquatic Chronic 3: H412 - H Eye Dam. 1: H318 - Causes Flam. Sol. 2: H228 - Flamma Met. Corr. 1: H290 - May be Skin Corr. 1A: H314 - Causes 	I (EU) 2020/878). the previous Safety Data o the classification (SECTIO 5 10-73-2) 2/2008 (SECTION 2, SECTIO s (SECTION 14): hrases mentioned in sect netals. urns and eye damage. amage. hrases mentioned in sect t refer to the product itself; n appear in section 3 L272/2008: Harmful if swallowed or if in armful to aquatic life with lo serious eye damage. able solid. corrosive to metals. s severe skin burns and eye skin irritation. se respiratory irritation.	<pre>co the compilation of safety data sheets of Regulation (EC) No 1907/2006 Sheet which concerns the ways of managing risks.: N 2): DN 16): tion 2: tion 3: they are present merely for informative purposes and refer to the nhaled. ong lasting effects.</pre>

^{**} Changes with regards to the previous version

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SECTION 16: OTHER INFORM	SECTION 16: OTHER INFORMATION ** (continued)					
Advice related to training:						
5	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						
http://echa.europa.eu http://eur-lex.europa.eu						
Abbreviations and acron	yms:					
	ADR: European agreement concerning the international carriage of dangerous goods by road					
IMDG: International maritin	5 5					
IATA: International Air Tran ICAO: International Civil Av						
COD: Chemical Oxygen Der	5					
BOD5: 5day biochemical ox						
BCF: Bioconcentration facto	r					
LD50: Lethal Dose 50						
LC50: Lethal Concentration						
EC50: Effective concentration						
LogPOW: Octanolwater part						
Koc: Partition coefficient of						
UFI: unique formula identifi						
IARC: International Agency	IUI RESEALLII UII CAIICEI					

** Changes with regards to the previous version

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.

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SECT	SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING				
1.1	Product identifier:	MB050 - Buffer	М3		
	Other means of identific	ation:			
	Non-applicable				
1.2	Relevant identified uses	of the substance or mixtu	re and uses advised against:		
	Relevant uses: Laboratory. For professional users only.				
	Uses advised against: All us	es not specified in this sectior	or in section 7.3		
1.3	Details of the supplier of	the safety data sheet:			
	NZYtech, Lda Estrada do Paco do Lumiar Campus do Lumiar - Edif. E, r/c 1649-038 Lisboa - Lisboa - Portugal Phone: +351 213643514 info@nzytech.com www.nzytech.com				
1.4	Emergency telephone nu	imber: Contact Local Poison	Information Center or Local Emergency 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. 3: Flammable liquids, Category 3, H226 Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Labelling of packages where the contents do not exceed 125 ml: Warning

Hazard statements:

Non-applicable

Precautionary statements:

Non-applicable

UFI: 1S00-W00A-X00C-S6KA

2.3 Other hazards:

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

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

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te of compilation: 12/08/2020	Revised: 31/01/202	4 Version: 4 (Replaced 3)			
SECTION 3: COMPOSITIO	N/INFORMATION ON I	NGREDIENTS ** (continued)			
Identification		Chemical name/Classification		Concentration	
CAS: 64-19-7	Acetic acid ⁽¹⁾		ATP CLP00		
EC: 200-580-7 Index: 607-002-00-6 REACH: 01-2119475328-30- XXXX	Regulation 1272/2008 Flam. L	Flam. Liq. 3: H226; Skin Corr. 1A: H314 - Danger			
To obtain more informat Other information:	tion on the hazards of the s	substances consult sections 11, 12 and 16.			
	Identification	Specific con	centration limit		
Acetic acid CAS: 64-19-7 EC: 200-580-7		% (w/w) >=90: Skin Corr. 1A - H31 25<= % (w/w) <90: Skin Corr. 1B - 10<= % (w/w) <25: Skin Irrit. 2 - H % (w/w) >=25: Eye Dam. 1 - H318 10<= % (w/w) <25: Eye Irrit. 2 - H	- H314 H315		

** 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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

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:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO2). Unsuitable extinguishing media:

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

5.2 Special hazards arising from the substance or mixture:

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SECTION 5: FIREFIGHTING MEASURES (continued)

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.

Advice for firefighters: 5.3

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

Additional provisions:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

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

For emergency responders:

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:

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

6.4 **Reference to other sections:**

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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

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

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)

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 SECTION 7: HANDLING AND STORAGE (continued)
 Version: 4 (Replaced 3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

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):

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

Identification	Occupa	ational exposure li	mits
Acetic acid	IOELV (8h)	10 ppm	25 mg/m ³
CAS: 64-19-7 EC: 200-580-7	IOELV (STEL)	20 ppm	50 mg/m ³

DNEL (Workers):

		Short e	xposure	Long ex	kposure
Identification		Systemic	Local	Systemic	Local
Acetic acid	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-19-7	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-580-7	Inhalation	Non-applicable	25 mg/m ³	Non-applicable	25 mg/m ³

DNEL (General population):

		Short e	xposure	Long ex	xposure
Identification		Systemic	Local	Systemic	Local
Acetic acid	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-19-7	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-580-7	Inhalation	Non-applicable	25 mg/m ³	Non-applicable	25 mg/m ³

PNEC:

Identification				
Acetic acid	STP	85 mg/L	Fresh water	3,058 mg/L
CAS: 64-19-7	Soil	0,47 mg/kg	Marine water	0,306 mg/L
EC: 200-580-7	Intermittent	30,58 mg/L	Sediment (Fresh water)	11,36 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	1,136 mg/kg

8.2 Exposure controls:

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

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

B.- Respiratory protection

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

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CTI	ON 8: EXPOSURE	CONTR	ols/ <u>person/</u>	AL PR <u>OTECTI</u>	ON (continued)							
	Pictogram		PPE	Labelling	CEN Standard		Remarks					
	Pictogram		PPE	Labelling	CEN Standard		Kellidiks					
	Mandatory hand protection	(Materia Breakthr	l protective gloves al: Viton®-Butyl, ough time: > 480 ickness: 0.7 mm)	CAT III	EN ISO 21420:2020	Repl	ace the gloves at any sign of deterioratic					
						terial ca	n not be calculated in advance wit					
	total reliability an D Eye and face prot		refore to be che	cked prior to th	e application.							
	, .		PPE	Labelling	CEN Standard		Remarks					
	Pictogram		FFL	Labelling	CEN Stanuaru		Reilidiks					
	Mandatory face protection		ic glasses against h/projections.	CAT II	EN 166:2002 EN ISO 4007:2018		daily and disinfect periodically according nanufacturer´s instructions. Use if there risk of splashing.					
	E Body protection											
	Pictogram		PPE	Labelling	CEN Standard		Remarks					
	Mandatory complete body protection		tic and fireproof active clothing		EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018		Limited protection against flames.					
	Mandatory foot protection	antistatic	r footwear with and heat resistant properties		EN ISO 13287:2020 EN ISO 20345:2011	Re	eplace boots at any sign of deterioration.					
	F Additional emerge	ency mea	sures									
	Emergency mea	asure	St	andards	Emergency mea	asure	Standards					
	Emergency sho	ower		5I Z358-1 11, ISO 3864-4:20:	l1 Eyewash stati	ons	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011					
	Environmental exp				Lychash stat							
	In accordance with th spillage of both the p Volatile organic co	ne commi product ar mpound tive 2010/ 20 °C: number:	unity legislation in nd its container. Is: (75/EU, this proc 20 % 228,7 2	For additional ir	formation see subsecti owing characteristics:		mmended to avoid environmental					
				-								
TI	ON O DHVSTCAL		EPHICAL PROP									
	ON 9: PHYSICAL /			Information on basic physical and chemical properties:								
	Information on ba					For complete information see the product datasheet.						
	Information on base For complete information											
:	Information on base For complete information Appearance:	ation see		asheet.								
	Information on base For complete informa Appearance: Physical state at 20 °	ation see		asheet. Liquid								
	Information on base For complete information Appearance:	ation see		asheet. Liquid Not a	d Ivailable Irless							

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SECT	TION 9: PHYSICAL AND CHEMICAL PROPER	TIES (continued)	
	Odour:	Not available	
	Odour threshold:	Non-applicable *	
	Volatility:		
	Boiling point at atmospheric pressure:	104 °C	
	Vapour pressure at 20 °C:	2267 Pa	
	Vapour pressure at 50 °C:	11867,88 Pa (11,87 kPa)	
	Evaporation rate at 20 °C:	Non-applicable *	
	Product description:		
	Density at 20 °C:	1143,5 kg/m³	
	Relative density at 20 °C:	1,143	
	Dynamic viscosity at 20 °C:	1,82 cP	
	Kinematic viscosity at 20 °C:	1,59 mm²/s	
	Kinematic viscosity at 40 °C:	Non-applicable *	
	Concentration:	Non-applicable *	
	pH:	5,4 - 5,6	
	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 *	
	Flammability:		
	Flash Point:	46 °C	
	Flammability (solid, gas):	Non-applicable *	
	Autoignition temperature:	427 °C	
	Lower flammability limit:	Not available	
	Upper flammability limit:	Not available	
	Particle characteristics:		
	Median equivalent diameter:	Non-applicable	
9.2	Other information:		
	Information with regard to physical hazard o	classes:	
	Explosive properties:	Non-applicable *	
	Oxidising properties:	Non-applicable *	
	Corrosive to metals:	Non-applicable *	
	Heat of combustion:	Non-applicable *	
	Aerosols-total percentage (by mass) of flammable components: Other safety characteristics:	Non-applicable *	
	Surface tension at 20 °C:	Non-applicable *	
	Refraction index:	Non-applicable *	
	*Not relevant due to the nature of the product, not providing		

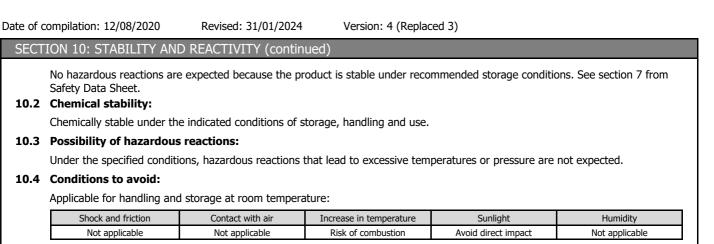
SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

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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:

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

Dangerous health implications:

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

- A- Ingestion (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
 - Corrosivity/Irritability: 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: Based on available data, the classification criteria are not met. However, it does contain substances
 - classified as hazardous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Produces skin inflammation.
 - 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 hazardous 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 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.

** Changes with regards to the previous version

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Date of c	compilation: 12/08/2020	Revised: 31/01/2024	Version: 4 (Re	placed 3)		
SECT	TON 11: TOXICOLOGICA	AL INFORMATION ** (cont	tinued)			
	F- Specific target organ to:	xicity (STOT) - single exposure	:			
	this effect. For more info	, the classification criteria are r ormation see section 3. kicity (STOT)-repeated exposur		s not contain sul	bstances classified as	hazardous for
	it does not contain subs - Skin: Based on availa	toxicity (STOT)-repeated expo tances classified as hazardous able data, the classification crite t. For more information see sec	for this effect. Fo eria are not met,	r more informati	on see section 3.	
	Based on available data this effect. For more info Other information:	, the classification criteria are r ormation see section 3.	not met, as it doe	s not contain sul	bstances classified as	hazardous for
	Non-applicable					
	Specific toxicology infor	mation on the substances:				
		Identification		A	cute toxicity	Genus
	Acetic acid			LD50 oral	>2000 mg/kg	
	CAS: 64-19-7			LD50 dermal	>2000 mg/kg	
	EC: 200-580-7			LC50 inhalation	>20 mg/L	
	Acute Toxicity Estimate	(ATE mix):				
		ATE mix			Ingredient(s) of unkr	nown toxicity
	Oral	>2000 mg/kg (Calculation	method)	Non-	applicable	
	Dermal	>2000 mg/kg (Calculation	method)	Non-	applicable	
	Inhalation Information on other ha	>20 mg/L (4 h) (Calculation	on method)	Non-	applicable	
11.2	Endocrine disrupting pro		et the criteria.			
** Chand	ges with regards to the previo	us version				
Chang						
SECT	TON 12: ECOLOGICAL IN	NFORMATION **				
The ex	xperimental information relat	ed to the eco-toxicological prop	perties of the pro	duct itself is not	available	
Based For mo		fication criteria are not met, as				s for this effect.
	Acute toxicity:					

Identification		Concentration	Species	Genus
Acetic acid	LC50	75 mg/L (96 h)	Lepomis macrochirus	Fish
CAS: 64-19-7	EC50	47 mg/L (24 h)	Daphnia magna	Crustacean
EC: 200-580-7	EC50	Non-applicable		

Chronic toxicity:

Identification		Concentration	Species	Genus
Acetic acid	NOEC	57,2 mg/L	Oncorhynchus mykiss	Fish
CAS: 64-19-7 EC: 200-580-7	NOEC	80 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

** Changes with regards to the previous version

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Acetic acid BODS Non-applicable Concentration 100 mg/L CAS: 64-19-7 COD Non-applicable Period 14 days EC: 200-580-7 BODS/COD Non-applicable Period 14 days 3 Bioaccumulative potential: Substance-specific information: 74 % Substance-specific information: Bioaccumulation potential Recirc acid BCF 3 Acetic acid Identification Bioaccumulation potential Down-applicable 90% log -0.71 EC: 200-580-7 Pow Log -0.71 EC: 200-580-7 Potential Low 4 Mobility in soil: Koc Non-applicable Henry Non-applicable 4 Mobility in soil: Conclusion Non-applicable Dry soil Non-applicable 5 Results of PBT and vPvB assessment: Fordact acid Surface tension 2,699E-2 N/m (25 °C) Moist soil Non-applicable 6 Endocrine-disrupting properties: The product does not meet the criteria. To mapplicable Non-applicable Non-applicable Non-applicable Non-applicable Non-applicable Non-applicable		Identification	Deg	radability		E	Biodegrada	bility		
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Substance-specific information: Identification Bioaccumulation potential Acetic acid BCF 3 CAS: 64-19-7 Pow Log -0.71 EC: 200-580-7 Potential Low Mobility in soil: Identification Absorption/desorption Volatility Acetic acid Koc Non-applicable Henry Non-applicable CAS: 64-19-7 Conclusion Non-applicable Dry soil Non-applicable CAS: 64-19-7 Conclusion Non-applicable Dry soil Non-applicable FC: 200-580-7 Surface tension 2,699E-2 N/m (25 °C) Moist soil Non-applicable FC FC Surface tension 2,699E-2 N/m (25 °C) Moist soil Non-applicable F Product does not meet PBT/vPvB criteria E E E E E F Endocrine disrupting properties: The product does not meet the criteria. C Other adverse effects: C F Other adverse effects: C C C C C C	EC: 200-58)-7	BOD5/COD	Non-applicable	% Bio	odegradable		74 %		
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 5 Results of PBT and vPvB assessment: Product does not meet PBT/vPvB criteria 6 Endocrine disrupting properties: Endocrine-disrupting properties: The product does not meet the criteria. 7 Other adverse effects: 	CAS: 64-19	-7	Conclusion	Non-applicable		Dry soil		Non-applicable		
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 6 Endocrine disrupting properties: Endocrine-disrupting properties: The product does not meet the criteria. 7 Other adverse effects: 	5 Results o	Results of PBT and vPvB assessment:								
Endocrine-disrupting properties: The product does not meet the criteria. 7 Other adverse effects:	Product de	oes not meet PBT/vPvB criteria	1							
7 Other adverse effects:	6 Endocrin	e disrupting properties:								
	Endocrine	-disrupting properties: The pro	duct does not meet the	criteria.						
Not described	7 Other ad	verse effects:								
	Not descri	bed								
nges with regards to the previous version										

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, HP8 Corrosive

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land: With regard to ADP 2022 and PID 2022:

With regard to ADR 2023 and RID 2023:

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SECTION 14: TRANSPORT INFORMATION (continued) Image: Instrumental propersition of the propersitic	
14.2 UN proper shipping name: ACETIC ACID SOLUTION 14.3 Transport hazard class(es): 8 14.4 Packing group: III 14.5 Environmental hazards: No 14.6 Special precautions for user S97, 647 Tunnel restriction code: E Physico-Chemical properties: see section 9 Limited quantities: 5 L 14.7 Maritime transport in bulk according to IMO instruments: Transport of dangerours goods by sea: With regard to IMDG 40-20: UN2790 14.2 UN proper shipping name: ACETIC ACID SOLUTION 14.3 Transport hazard class(es): 8 14.4 Packing group: III 14.5 Maritime pollutant: No 14.4 Packing group: III 14.5 Marine pollutant: No 14.4 Packing group: III 14.5 Marine pollutant: No 14.6 Special precautions for user Special precautions for user 14.6 Special precautions for user Special precautions for user	
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14.1 UN number or ID number: UN2790 14.2 UN proper shipping name: ACETIC ACID SOLUTION 14.3 Transport hazard class(es): 8 Labels: 8 14.4 Packing group: IIII 14.5 Marine pollutant: No 14.6 Special precautions for user Special regulations:	
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Labels: 8 14.4 Packing group: III 14.5 Marine pollutant: No 14.6 Special precautions for user Special regulations: Non-applicable	
14.4 Packing group: III 8 14.5 Marine pollutant: No 14.6 Special precautions for user Special regulations: Non-applicable	
8 14.5 Marine pollutant: No 14.6 Special precautions for user Non-applicable	
14.6 Special precautions for user Special regulations: Non-applicable	
Special regulations: Non-applicable	
EmS Codes: F-A, S-B	
Physico-Chemical properties: see section 9	
Limited quantities: 5 L	
Segregation group: SGG1	
14.7 Maritime transport in bulk Non-applicable according to IMO instruments:	
Transport of dangerous goods by air:	
With regard to IATA/ICAO 2023:	
众、 14.1 UN number or ID number: UN2790	
14.2 UN proper shipping name: ACETIC ACID SOLUTION	
14.3 Transport hazard class(es): 8	
Labels: 8	
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 Non-applicable according to IMO instruments:	

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable Article 95, REGULATION (EU) No 528/2012: Acetic acid

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Date of compilation: 12/08/2020 Revised: 31/01/2024 Version: 4 (Replaced 3) SECTION 15: REGULATORY INFORMATION (continued) REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable Seveso III: Lower-tier Upper-tier Section Description requirements requirements P5c FLAMMABLE LIQUIDS 5000 50000 Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc): Shall not be used in: -ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, -tricks and jokes, -games for one or more participants, or any article intended to be used as such, even with ornamental aspects. Specific provisions in terms of protecting people or the environment: It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product. Other legislation: The product could be affected by sectorial legislation 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.: COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12): New declared substances Acetic acid (64-19-7) Removed substances Acetic acid (64-19-7) Texts of the legislative phrases mentioned in section 2: H315: Causes skin irritation. H226: Flammable liquid and vapour. H319: Causes serious eye irritation. 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: Flam. Lig. 3: H226 - Flammable liquid and vapour. Skin Corr. 1A: H314 - Causes severe skin burns and eye damage. Classification procedure: Skin Irrit. 2: Calculation method Flam. Lig. 3: Calculation method (2.6.4.3) Eye Irrit. 2: Calculation method Advice related to training: Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product. Principal bibliographical sources: http://echa.europa.eu http://eur-lex.europa.eu Abbreviations and acronyms:

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Date of compilation: 12/08/2020	Revised: 31/01/2024	Version: 4 (Replaced 3)
SECTION 16: OTHER INFORM	1ATION (continued)	
ADR: European agreement IMDG: International maritir IATA: International Air Tran ICAO: International Civil Av COD: Chemical Oxygen Der BOD5: 5day biochemical ox BCF: Bioconcentration facto LD50: Lethal Dose 50 LC50: Lethal Concentration EC50: Effective concentratio LogPOW: Octanolwater par Koc: Partition coefficient of UFI: unique formula identif IARC: International Agency	ne dangerous goods code sport Association riation Organisation mand tygen demand or 50 on 50 tition coefficient organic carbon ier	carriage of dangerous goods by road

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.

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Date of compilation: 17/10/2023 Version: 1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 Product identifier: MB050 - Buffer MEQ Other means of identification: Non-applicable 1.2 Relevant identified uses of the substance or mixture and uses advised against: Relevant uses: Laboratory. For professional users only. Uses advised against: All uses not specified in this section or in section 7.3 Details of the supplier of the safety data sheet: 1.3 NZYtech, Lda Estrada do Paco do Lumiar Campus do Lumiar - Edif. E, r/c 1649-038 Lisboa - Lisboa - Portugal Phone: +351 213643514 info@nzytech.com www.nzytech.com 1.4 Emergency telephone number: National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.

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. Flam. Liq. 3: Flammable liquids, Category 3, H226 2.2 Label elements: CLP Regulation (EC) No 1272/2008: Labelling of packages where the contents do not exceed 125 ml: Warning Hazard statements: Non-applicable **Precautionary statements:** Non-applicable UFI: 6Y00-W0D4-J00A-3VRF 2.3 **Other hazards:** Product does not meet PBT/vPvB criteria The product contains substances with endocrine-disrupting properties: Polyethylene glycol mono(octylphenyl) ether

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance: 3.1

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

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



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

	Identification		Chemical name/Classification					
CAS:	64-17-5	ethanol ⁽¹⁾		Self-classified				
	200-578-6 603-002-00-5 01-2119457610-43- XXXX	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger		10 - <25 %			
CAS:		Polyethylene glycol	mono(octylphenyl) ether ⁽¹⁾	Self-classified				
EC: Index: REACH:	935-231-4 Non-applicable Non-applicable	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	(!)	<1 %			

(1) Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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

Other information:

Identification	Specific concentration limit
ethanol CAS: 64-17-5 EC: 200-578-6	% (w/w) >=50: Eye Irrit. 2 - H319

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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for 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:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

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

5.2 Special hazards arising from the substance or mixture:

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

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SECTION 5: FIREFIGHTING MEASURES (continued)

5.3 Advice for firefighters:

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

Additional provisions:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

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

For emergency responders:

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

6.2 Environmental precautions:

It is recommended to avoid environmental spillage of both the product and its container.

6.3 Methods and material for containment and cleaning up:

It is recommended:

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

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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

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

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

C.- Technical recommendations on general occupational hygiene

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

D.- Technical recommendations to prevent environmental risks

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

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SECTION 7: HANDLING AND STORAGE (continued)

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):

		Short e	xposure	Long ex	kposure
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	950 mg/m ³	Non-applicable

DNEL (General population):

		Short e	xposure	Long ex	kposure
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	114 mg/m ³	Non-applicable

PNEC:

Identification				
ethanol	STP	580 mg/L	Fresh water	0,96 mg/L
CAS: 64-17-5	Soil	0,63 mg/kg	Marine water	0,79 mg/L
EC: 200-578-6	Intermittent	2,75 mg/L	Sediment (Fresh water)	3,6 mg/kg
	Oral	0,38 g/kg	Sediment (Marine water)	2,9 mg/kg

8.2 Exposure controls:

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

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

B.- Respiratory protection

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

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)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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

D.- Eye and face protection

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_		CONTRU	DES/PERSON	al protect.	ION (continued)		
	Pictogram		PPE	Labelling	CEN Standard		Remarks
	Mandatory face protection		c glasses against /projections.		EN 166:2002 EN ISO 4007:2018		daily and disinfect periodically according nanufacturer´s instructions. Use if there i risk of splashing.
E	Body protection				•		
	Pictogram		PPE	Labelling	CEN Standard		Remarks
	Mandatory complete body protection		c and fireproof tive clothing		EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018		Limited protection against flames.
	Mandatory foot protection	antistatic a	footwear with and heat resistant roperties		EN ISO 13287:2020 EN ISO 20345:2011	Re	place boots at any sign of deterioration.
F	Additional emerge	ency meas	sures				
	Emergency mea	asure	St	andards	Emergency meas	ure	Standards
	Emergency sho	nwer		SI Z358-1 11, ISO 3864-4:20	011 Eyewash statio	ns	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
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SECTI	ON 9: PHYSICAL AND CHEMICAL PROPERTIES	6 (continued)
	Product description:	
	Density at 20 °C:	1021,1 kg/m ³
	Relative density at 20 °C:	1,021
	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:	6,2 - 6,4
	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 *
	Flammability:	
	Flash Point:	39 °C
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	423 °C
	Lower flammability limit:	Not available
	Upper flammability limit:	Not available
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable
9.2	Other information:	
	Information with regard to physical hazard class	Ses:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components: Other safety characteristics:	Non-applicable *
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing inform	

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:



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SECTI	SECTION 10: STABILITY AND REACTIVITY (continued)								
	Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity				
	Not applicable Not applicable Risk of combustion Avoid direct impact Not appli								
10.5	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 (CO_2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

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, however, it contains 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 hazardous for this effect. For more information see section 3.

- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous 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. However, it contains substances classified as hazardous for skin contact. For more information see section 3.

- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- 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 hazardous for the effects mentioned. For more information see section 3.
 - IARC: ethanol (1)

- 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:

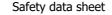
Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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.



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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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:

Non-applicable

Specific toxicology information on the substances:

Identification	Acut	Genus	
ethanol	LD50 oral	6200 mg/kg	Rat
CAS: 64-17-5	LD50 dermal	20000 mg/kg	Rabbit
EC: 200-578-6	LC50 inhalation	124,7 mg/L (4 h)	Rat
Polyethylene glycol mono(octylphenyl) ether	LD50 oral	>2000 mg/kg	
CAS: 9036-19-5	LD50 dermal	>2000 mg/kg	
EC: 935-231-4	LC50 inhalation	Non-applicable	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	Non-applicable
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

11.2 Information on other hazards:

Endocrine disrupting properties

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

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

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

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
ethanol	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
CAS: 64-17-5	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-578-6	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae
Polyethylene glycol mono(octylphenyl) ether	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 9036-19-5	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 935-231-4	EC50	>0.1 - 1 mg/L (72 h)		Algae

Chronic toxicity:

Identification	Concentration		Species	Genus	
ethanol	NOEC	250 mg/L	Danio rerio	Fish	
CAS: 64-17-5 EC: 200-578-6	NOEC	2 mg/L	Ceriodaphnia dubia	Crustacean	

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
ethanol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 64-17-5	COD	Non-applicable	Period	14 days
EC: 200-578-6	BOD5/COD	Non-applicable	% Biodegradable	89 %



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SECT	ION 12: ECOLOGICAL IN	IFORMATION (continued)				
12.3 Bioaccumulative potential: Substance-specific information:						
Identification Bioaccumulation potential					mulation potential	I
	ethanol			BCF	3	l
	CAS: 64-17-5			Pow Log	-0.31	İ.
	EC: 200-578-6			Potential	Low	I

12.4 Mobility in soil:

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Identification	Absorption/desorption		Volatility	
ethanol	Кос	1	Henry	4,61E-1 Pa·m ³ /mol
CAS: 64-17-5	Conclusion	Very High	Dry soil	Yes
EC: 200-578-6	Surface tension	2,339E-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:

Contains Polyethylene glycol mono(octylphenyl) ether. A substance shall be considered as having endocrine-disrupting properties that may cause adverse effects on non-target organisms if: (a) it shows an adverse effect in non-target organisms, which is a change in the morphology, physiology, growth, development, reproduction or life span of an organism, system or (sub)population that results in an impairment of functional capacity, an impairment of the capacity to compensate for additional stress or an increase in susceptibility to other influences

(b) it has an endocrine mode of action, i.e. it alters the function(s) of the endocrine system

(c) the adverse effect is a consequence of the endocrine mode of action.

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)
	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

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

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SECTION 14: TRANSPORT INFORMATION (continued) 14.1 UN number or ID number: UN1993 14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol) 14.3 Transport hazard class(es): 3 Labels: 3	
14.2UN proper shipping name:FLAMMABLE LIQUID, N.O.S. (ethanol)14.3Transport hazard class(es):3	
14.3 Transport hazard class(es): 3	
EdbCl3: 5	
14.4 Packing group: III	
14.5 Environmental hazards: No	
14.6 Special precautions for user	
Special regulations: 274, 601	
Tunnel restriction code: D/E	
Physico-Chemical properties: see section 9	
Limited quantities: 5 L	
14.7 Maritime transport in bulk Non-applicable according to IMO instruments:	
Transport of dangerous goods by sea:	
With regard to IMDG 40-20:	
14.1 UN number or ID number: UN1993	
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol)	
14.3 Transport hazard class(es): 3	
Labels: 3	
14.4 Packing group: III	
3 14.5 Marine pollutant: No	
14.6 Special precautions for user	
Special regulations: 274, 223, 955	
EmS Codes: F-E, S-E	
Physico-Chemical properties: see section 9	
Limited quantities: 5 L	
Segregation group: Non-applicable	
14.7 Maritime transport in bulk Non-applicable according to IMO instruments:	
Transport of dangerous goods by air:	
With regard to IATA/ICAO 2023:	
14.1 UN number or ID number: UN1993	
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol)	
14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol) 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 Non-applicable according to IMO instruments:	

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Polyethylene glycol mono(octylphenyl) ether

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Polyethylene glycol mono(octylphenyl) ether (04/01/2021)

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

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Date of compilation: 17/10/2023 Version: 1 SECTION 15: REGULATORY INFORMATION (continued) Article 95, REGULATION (EU) No 528/2012: ethanol (Product-type 1, 2, 4) REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable Seveso III: Lower-tier Upper-tier Section Description requirements requirements P5c FLAMMABLE LIQUIDS 5000 50000 Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc): Shall not be used in: -ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, -tricks and jokes, -games for one or more participants, or any article intended to be used as such, even with ornamental aspects. Specific provisions in terms of protecting people or the environment: It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product. Other legislation: The product could be affected by sectorial legislation 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.: Non-applicable Texts of the legislative phrases mentioned in section 2: H226: Flammable liquid and vapour. Texts of the legislative phrases mentioned in section 3: The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3 CLP Regulation (EC) No 1272/2008: Acute Tox. 4: H302 - Harmful if swallowed. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects. Eye Dam. 1: H318 - Causes serious eye damage. Eye Irrit. 2: H319 - Causes serious eye irritation. Flam. Liq. 2: H225 - Highly flammable liquid and vapour. Skin Irrit. 2: H315 - Causes skin irritation. **Classification procedure:** Flam. Liq. 3: Calculation method (2.6.4.3) Advice related to training: Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product. Principal bibliographical sources: http://echa.europa.eu http://eur-lex.europa.eu Abbreviations and acronyms:

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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: 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.

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Date of compilation: 31/01/2024 Version: 1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 Product identifier: MB050 - Buffer MW Other means of identification: Non-applicable 1.2 Relevant identified uses of the substance or mixture and uses advised against: Relevant uses: Laboratory. For professional users only. Uses advised against: All uses not specified in this section or in section 7.3 Details of the supplier of the safety data sheet: 1.3 NZYtech, Lda Estrada do Paco do Lumiar Campus do Lumiar - Edif. E, r/c 1649-038 Lisboa - Lisboa - Portugal Phone: +351 213643514 info@nzytech.com www.nzytech.com 1.4 Emergency telephone number: National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your

regional Poisons Information Service or call local Life Saving Service.

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. Flam. Liq. 3: Flammable liquids, Category 3, H226 2.2 Label elements: CLP Regulation (EC) No 1272/2008: Labelling of packages where the contents do not exceed 125 ml: Warning Hazard statements: Non-applicable **Precautionary statements:** Non-applicable UFI: 7110-E02H-U00U-S7AH 2.3 **Other hazards:** Product does not meet PBT/vPvB criteria Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance: 3.1

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances **Components:**

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



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TON 3:	COMPOSITION	I/INFORMATION	ON INGREDIENTS (continued)	
	Identification		Chemical name/Classification	Concentration
		ethanol ⁽¹⁾	Self-classified	
Index: 6 REACH: 0	200-578-6 603-002-00-5 01-2119457610-43- XXXX	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger	10 - <25 %

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

Other information:

Identification	Specific concentration limit
ethanol CAS: 64-17-5 EC: 200-578-6	% (w/w) >=50: Eye Irrit. 2 - H319

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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

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

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

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

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

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

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

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

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SECTION 5: FIREFIGHTING MEASURES (continued)

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:

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

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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

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

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

C.- Technical recommendations on general occupational hygiene

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

D.- Technical recommendations to prevent environmental risks

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

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



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SECTION 7: HANDLING AND STORAGE (continued)

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):

		Short e	xposure	Long ex	xposure
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	950 mg/m ³	Non-applicable

DNEL (General population):

		Short e	xposure	Long ex	kposure
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	114 mg/m³	Non-applicable

PNEC:

Identification				
ethanol	STP	580 mg/L	Fresh water	0,96 mg/L
CAS: 64-17-5	Soil	0,63 mg/kg	Marine water	0,79 mg/L
EC: 200-578-6	Intermittent	2,75 mg/L	Sediment (Fresh water)	3,6 mg/kg
	Oral	0,38 g/kg	Sediment (Marine water)	2,9 mg/kg

8.2 Exposure controls:

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

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

B.- Respiratory protection

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

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)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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

D.- Eye and face protection

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TIO	N 8: EXPOSURE	CONTR	OLS/PERSON/	AL PROTECT	ION (continued)		
	Pictogram		PPE	Labelling	CEN Standard		Remarks
	Mandatory face protection		nic glasses against sh/projections.		EN 166:2002 EN ISO 4007:2018		daily and disinfect periodically according nanufacturer´s instructions. Use if there is risk of splashing.
E.	- Body protection						
	Pictogram		PPE	Labelling	CEN Standard		Remarks
	Mandatory complete body protection		atic and fireproof ective clothing		EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018		Limited protection against flames.
	Mandatory foot protection	antistatic	y footwear with and heat resistant properties		EN ISO 13287:2020 EN ISO 20345:2011	Re	eplace boots at any sign of deterioration.
F.	- Additional emerge	ency mea	asures		-		
	Emergency mea	asure	St	andards	Emergency meas	ure	Standards
	Emergency sho	ower		5I Z358-1 11, ISO 3864-4:20	111 Eyewash station	15	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
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SECT	TION 9: PHYSICAL AND CHEMICAL PROPERTIE	S (continued)
	Product description:	
	Density at 20 °C:	1030,2 kg/m ³
	Relative density at 20 °C:	1,03
	Dynamic viscosity at 20 °C:	1,29 cP
	Kinematic viscosity at 20 °C:	1,25 mm²/s
	Kinematic viscosity at 40 °C:	Non-applicable *
	Concentration:	Non-applicable *
	pH:	6,2 - 6,4
	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 *
	Flammability:	
	Flash Point:	38 °C
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	423 °C
	Lower flammability limit:	Not available
	Upper flammability limit:	Not available
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable
9.2	Other information:	
	Information with regard to physical hazard clas	sses:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components: Other safety characteristics:	Non-applicable *
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing info	prmation 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:



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SECTI	SECTION 10: STABILITY AND REACTIVITY (continued)						
	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	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:

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

Dangerous health implications:

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

A- Ingestion (acute effect):

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

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

- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous 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 hazardous for skin contact. For more information see section 3.

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

- 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 hazardous for the effects mentioned. For more information see section 3.
 - IARC: ethanol (1)

- 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:

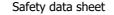
Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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.



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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Version: 1

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:

Non-applicable

Specific toxicology information on the substances:

Identification	Acut	Genus	
ethanol	LD50 oral	6200 mg/kg	Rat
CAS: 64-17-5	LD50 dermal	20000 mg/kg	Rabbit
EC: 200-578-6	LC50 inhalation	124,7 mg/L (4 h)	Rat

Acute Toxicity Estimate (ATE mix):

	ATE mix	Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	Non-applicable
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

11.2 Information on other hazards:

Endocrine disrupting properties

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

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

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:

Acute toxicity:

Identification	Concentration		Species	Genus
ethanol	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
CAS: 64-17-5	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-578-6	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae

Chronic toxicity:

Identification		Concentration	Species	Genus
ethanol	NOEC	250 mg/L	Danio rerio	Fish
CAS: 64-17-5 EC: 200-578-6	NOEC	2 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradab	ility
ethanol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 64-17-5	COD	Non-applicable	Period	14 days
EC: 200-578-6	BOD5/COD	Non-applicable	% Biodegradable	89 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccur	nulation potential
ethanol	BCF	3
CAS: 64-17-5	Pow Log	-0.31
EC: 200-578-6	Potential	Low

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

Identification Absorption/desorption		on/desorption	Volati	lity
ethanol	Кос	1	Henry	4,61E-1 Pa·m ³ /mol
CAS: 64-17-5	Conclusion	Very High	Dry soil	Yes
EC: 200-578-6	Surface tension	2,339E-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)
	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

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

	UN proper shipping name: Transport hazard class(es): Labels:	UN1993 FLAMMABLE LIQUID, N.O.S. (ethanol) 3 3 III
14.5	Environmental hazards:	No
14.6	Special precautions for user	
	Special regulations:	274, 601
	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:	Non-applicable
Transport of dangero	ous goods by sea:	
With regard to IMDG 40)-20:	

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		INFORMATION (continued)			
		UN number or ID number:	UN1993		
		UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (ethanol))	
Je.	14.3	Transport hazard class(es):	3		
		Labels:	3		
		Packing group:	III		
3		Marine pollutant:	No		
•	14.6	Special precautions for user Special regulations:	274, 223, 955		
		EmS Codes:			
		Physico-Chemical properties:	F-E, S-E see section 9		
		Limited quantities:	5 L		
		Segregation group:	Non-applicable		
	147	Maritime transport in bulk	Non-applicable		
	14.7	according to IMO instruments:	поп-аррісаріе		
Transport of	dangero	ous goods by air:			
With regard to	DIATA/ICA	AO 2023:			
	14.1	UN number or ID number:	UN1993		
she		UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (ethanol))	
		Transport hazard class(es):	3		
		Labels:	3		
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:	Non-applicable		
ECTION 15: REG	JLATORY	(INFORMATION			
			ation specific for the substance or i		
		5	n (EC) No 1907/2006 (REACH): Non-ap	•	
		•	n List") and sunset date: Non-applicable	:	
Regulation (EC) No 1005	/2009, about substances that depl	ete the ozone layer: Non-applicable		
Article 95, REG	ULATION	(EU) No 528/2012: ethanol (Produ	ict-type 1, 2, 4)		
REGULATION (EU) No 64	19/2012, in relation to the import a	nd export of hazardous chemical produ	cts: Non-applica	able
Seveso III:					
Section		Descriptior	1	Lower-tier	Upper-tier
	Ammable Li	•		requirements 5000	requirement 50000
FDC FL			ain dangerous substances and mix		

—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.

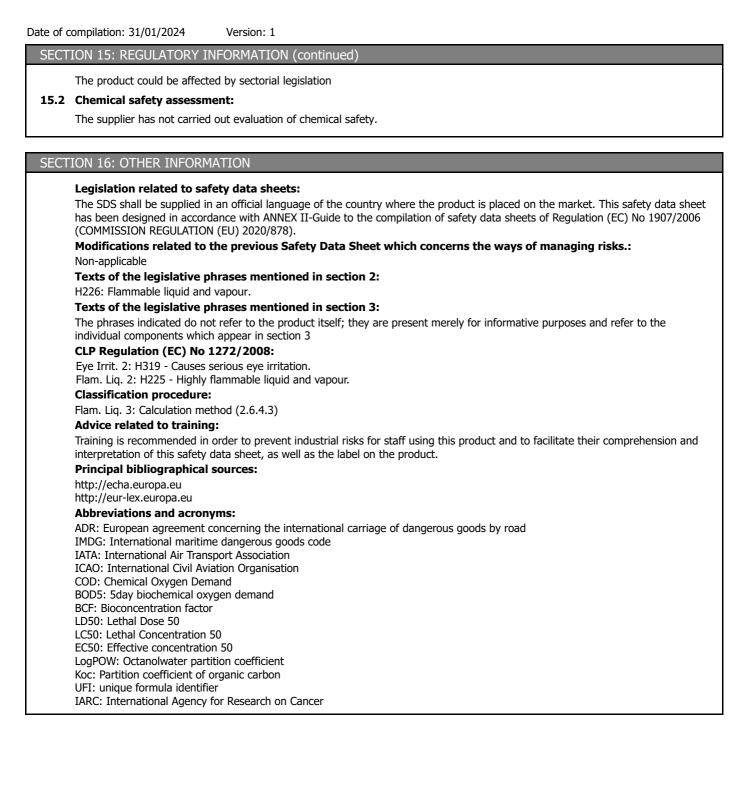
Other legislation:

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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.

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_	······	ion: 1 HE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING			
1.1	Product identifier:	MB050 - Buffer ME			
	Other means of identification:				
	Non-applicable				
1.2	Relevant identified uses of the	substance or mixture and uses advised against:			
	Relevant uses: Laboratory. For profe	essional users 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:				
	NZYtech, Lda Estrada do Paco do Lumiar Campus 1649-038 Lisboa - Lisboa - Portugal Phone: +351 213643514 info@nzytech.com www.nzytech.com				
1.4		National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.			

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.
	Flam. Liq. 3: Flammable liquids, Category 3, H226
2.2	Label elements:
	CLP Regulation (EC) No 1272/2008:
	Labelling of packages where the contents do not exceed 125 ml:
	Warning
	Hazard statements:
	Non-applicable
	Precautionary statements:
	Non-applicable
	UFI: 5410-W0RX-500A-EJWK
2.3	Other hazards:
	Product does not meet PBT/vPvB criteria Endocrine-disrupting properties: The product does not meet the criteria.
	
SECT	ION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances **Components:**

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



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	Identification		Chemical name/Classification	Concentra
	64-17-5	ethanol ⁽¹⁾	Self-classified	
EC: Index: REACH:	200-578-6 603-002-00-5 01-2119457610-43- XXXX	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger	10 - <25

Other information:

Identification	Specific concentration limit
ethanol CAS: 64-17-5 EC: 200-578-6	% (w/w) >=50: Eye Irrit. 2 - H319

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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

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

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

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

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

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

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

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

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SECTION 5: FIREFIGHTING MEASURES (continued)

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:

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

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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

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

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

C.- Technical recommendations on general occupational hygiene

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

D.- Technical recommendations to prevent environmental risks

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

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



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SECTION 7: HANDLING AND STORAGE (continued)

7.3 Specific end use(s):

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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):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	950 mg/m³	Non-applicable

DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	114 mg/m³	Non-applicable

PNEC:

Identification				
ethanol	STP	580 mg/L	Fresh water	0,96 mg/L
CAS: 64-17-5	Soil	0,63 mg/kg	Marine water	0,79 mg/L
EC: 200-578-6	Intermittent	2,75 mg/L	Sediment (Fresh water)	3,6 mg/kg
	Oral	0,38 g/kg	Sediment (Marine water)	2,9 mg/kg

8.2 Exposure controls:

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

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

B.- Respiratory protection

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

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)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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

D.- Eye and face protection

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	ON 8: EXPOSURE	CONTR	ROLS/PERSON	al protect.	ION (continued)		
	Pictogram		PPE	Labelling	CEN Standard	1	Remarks
	Mandatory face protection		nic glasses against sh/projections.		EN 166:2002 EN ISO 4007:20	the	an daily and disinfect periodically according e manufacturer´s instructions. Use if there i risk of splashing.
F	E Body protection				-		
	Pictogram		PPE	Labelling	CEN Standard	l i	Remarks
	Mandatory complete body protection		atic and fireproof tective clothing		EN 1149-1:200 EN 1149-2:199 EN 1149-3:200 EN 168:2002 EN 168:2002 EN ISO 14116:20 EN 1149-5:201	7 14 015	Limited protection against flames.
	Mandatory foot protection	antistatio	y footwear with c and heat resistant properties		EN ISO 13287:20 EN ISO 20345:20		Replace boots at any sign of deterioration.
I	F Additional emerge	ency mea	asures				
	Emergency me	asure	St	andards	Emergeno	cy measure	Standards
	Emergency shower		ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011		11	• +	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
] 9	Environmental exp In accordance with the spillage of both the p Volatile organic co With regard to Direct	he comm product a pmpound	nunity legislation Ind its container. ds:	For additional i	nformation see sub	osection 7.1	commended to avoid environmental .D
] 9	In accordance with the point of both the point o	he comm product a pmpound tive 2010 20 °C:	nunity legislation Ind its container. ds: 1/75/EU, this pro 15 %	For additional i	nformation see sub lowing characterist	osection 7.1	
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	In accordance with the polatile organic conversion of both the polatile organic conversion of both the polatile organic conversion of both regard to Direct V.O.C. (Supply): V.O.C. density at Average carbon reversage molecular of the second conversion of bases of the second conversion of the seco	he commo product a product a product a 20 °C: number: ar weight AND CH sic phys ation see PC: spheric p 20 °C: spheric p	nunity legislation ind its container. ds: 1/75/EU, this prod 15 % 153,7 2 :: 46,1 HEMICAL PROF sical and chemi the product data	For additional i duct has the for weight 71 kg/m ³ (153, g/mol PERTIES ical properties asheet. Liqu Not Colo Not Not 96 ° 265: 1370	nformation see sub lowing characterist .71 g/L) s: id available urless available -applicable * C	osection 7.1	



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te of	compilation: 17/10/2023 Version: 1	
SECT	TION 9: PHYSICAL AND CHEMICAL PROPERTIE	ES (continued)
	Product description:	
	Density at 20 °C:	1024,7 kg/m³
	Relative density at 20 °C:	1,025
	Dynamic viscosity at 20 °C:	1,26 cP
	Kinematic viscosity at 20 °C:	1,23 mm²/s
	Kinematic viscosity at 40 °C:	Non-applicable *
	Concentration:	Non-applicable *
	pH:	8,4 - 8,6
	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 *
	Flammability:	
	Flash Point:	39 °C
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	423 °C
	Lower flammability limit:	Not available
	Upper flammability limit:	Not available
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable
ə.2	Other information:	
	Information with regard to physical hazard cla	sses:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components: Other safety characteristics:	Non-applicable *
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing info	

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:



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SECTION 10: STABILITY AND REACTIVITY (continued)										
	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 ba					

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:

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

Dangerous health implications:

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

A- Ingestion (acute effect):

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

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

- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous 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 hazardous for skin contact. For more information see section 3.

- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- 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 hazardous for the effects mentioned. For more information see section 3.
 - IARC: ethanol (1)

- 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.

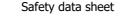
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- E- Sensitizing effects:

- 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:

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.

- 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.



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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Version: 1

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:

Non-applicable

Specific toxicology information on the substances:

Identification	Acut	Genus	
ethanol	LD50 oral	6200 mg/kg	Rat
CAS: 64-17-5	LD50 dermal	20000 mg/kg	Rabbit
EC: 200-578-6	LC50 inhalation	124,7 mg/L (4 h)	Rat

Acute Toxicity Estimate (ATE mix):

	ATE mix	Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	Non-applicable
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

11.2 Information on other hazards:

Endocrine disrupting properties

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

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

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:

Acute toxicity:

Identification	Concentration		Species	Genus
ethanol	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
CAS: 64-17-5	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-578-6	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
ethanol	NOEC	250 mg/L	Danio rerio	Fish
CAS: 64-17-5 EC: 200-578-6	NOEC	2 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
ethanol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 64-17-5	COD	Non-applicable	Period	14 days
EC: 200-578-6	BOD5/COD	Non-applicable	% Biodegradable	89 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccur	nulation potential
ethanol	BCF	3
CAS: 64-17-5	Pow Log	-0.31
EC: 200-578-6	Potential	Low

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

Identification	Absorpti	on/desorption	Volati	lity
ethanol	Кос	1	Henry	4,61E-1 Pa·m ³ /mol
CAS: 64-17-5	Conclusion	Very High	Dry soil	Yes
EC: 200-578-6	Surface tension	2,339E-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)
	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

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

14.2 14.3	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels: Packing group:	UN1993 FLAMMABLE LIQUID, N.O.S. (ethanol) 3 3 III
3 14.5	Environmental hazards:	No
14.6	Special precautions for user	
	Special regulations:	274, 601
	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:	Non-applicable
Transport of dangero	ous goods by sea:	
With regard to IMDG 40)-20:	

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SECTION 14: TRANSPC)RT I	INFORMATION (continued)	
	L4.2 L4.3	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels:	UN1993 FLAMMABLE LIQUID, N.O.S. (ethanol) 3 3
		Packing group: Marine pollutant:	III No
		Special precautions for user	
		Special regulations:	274, 223, 955
		EmS Codes:	F-E, S-E
		Physico-Chemical properties:	see section 9
		Limited quantities:	5 L
		Segregation group:	Non-applicable
1	L4.7	Maritime transport in bulk according to IMO instruments:	Non-applicable
Transport of dan	gero	us goods by air:	
With regard to IAT	A/ICA	NO 2023:	
1	L4.2	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels:	UN1993 FLAMMABLE LIQUID, N.O.S. (ethanol) 3 3
3 1	L4.4	Packing group:	III
-		Environmental hazards:	No
	14.0	Special precautions for user Physico-Chemical properties:	see section 9
1	L4.7	Maritime transport in bulk according to IMO instruments:	Non-applicable
SECTION 15: REGULAT 15.1 Safety, health and			ation specific for the substance or mixture:
Candidate substance	es for	authorisation under the Regulatio	n (EC) No 1907/2006 (REACH): Non-applicable
Substances included	l in Ar	nnex XIV of REACH ("Authorisation	n List") and sunset date: Non-applicable
Regulation (EC) No	1005/	2009, about substances that depl	ete the ozone layer: Non-applicable
Article 95, REGULAT	ION	(EU) No 528/2012: ethanol (Produ	ict-type 1, 2, 4)
			nd export of hazardous chemical products: Non-applicable
		. ,	,

Seveso III:

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

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

Shall not be used in:

-ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

-tricks and jokes,

-games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

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

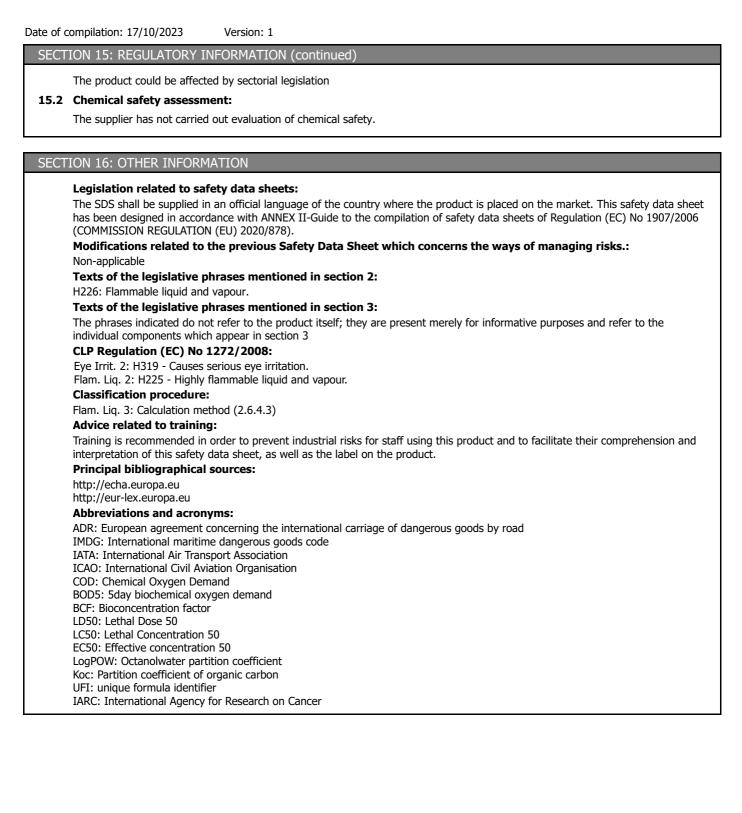
Other legislation:

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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.

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MB050 - RNase A

Date of	compilation: 12/08/202	20 Revised: 17/10/2023 Version: 2 (Replaced 1)
SEC	TION 1: IDENTIFIC	ATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1	Product identifier:	MB050 - RNase A
		Nuclease, ribo-
	CAS:	9001-99-4
	EC:	232-646-6
	Index:	Non-applicable
	REACH:	Non-applicable
	Other means of ide	entification:
	Non-applicable	
1.2	Relevant identified	l uses of the substance or mixture and uses advised against:
	Relevant uses: Labor	atory. For professional users only.
	Uses advised against	: All uses not specified in this section or in section 7.3
1.3	Details of the supp	lier of the safety data sheet:
	NZYtech, Lda Estrada do Paco do L 1649-038 Lisboa - Lis Phone: +351 213643 info@nzytech.com www.nzytech.com	5
1.4		one number: National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.

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.

Resp. Sens. 1: Sensitisation, respiratory, Category 1, H334

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Labelling of packages where the contents do not exceed 125 ml:

Danger

Hazard statements:

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P284: Wear respiratory protection.

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

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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

2.3 Other hazards:

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

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MB050 - RNase A

Date of compilation: 12/08/2020 Revised: 17/10/2023 Version: 2 (Replaced 1) SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued) Chemical description: Organic substance **Components:** In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains: Chemical name/Classification Identification Concentration 9001-99-4 CAS: Nuclease, ribo-Self-classified EC: 232-646-6 100 % Non-applicable Index: ٨ Regulation 1272/2008 Resp. Sens. 1: H334 - Danger REACH: Non-applicable To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

3.2 Mixture:

Non-applicable

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:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.

By ingestion/aspiration:

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

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

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

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

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:

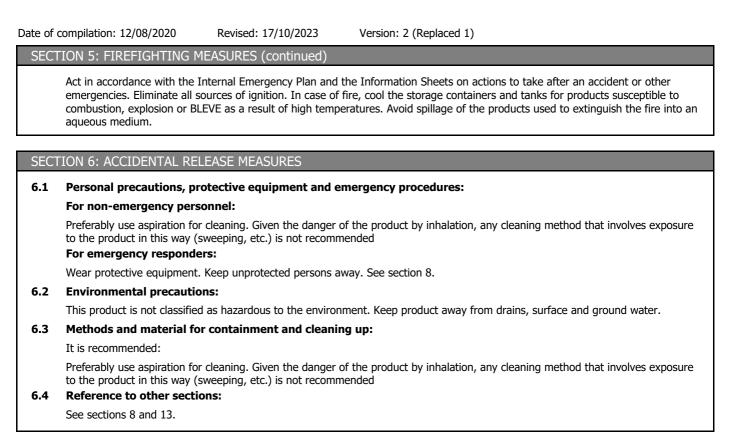
Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: 7.1

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C.- Technical recommendations on general occupational hygiene

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

D.- Technical recommendations to prevent environmental risks

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

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

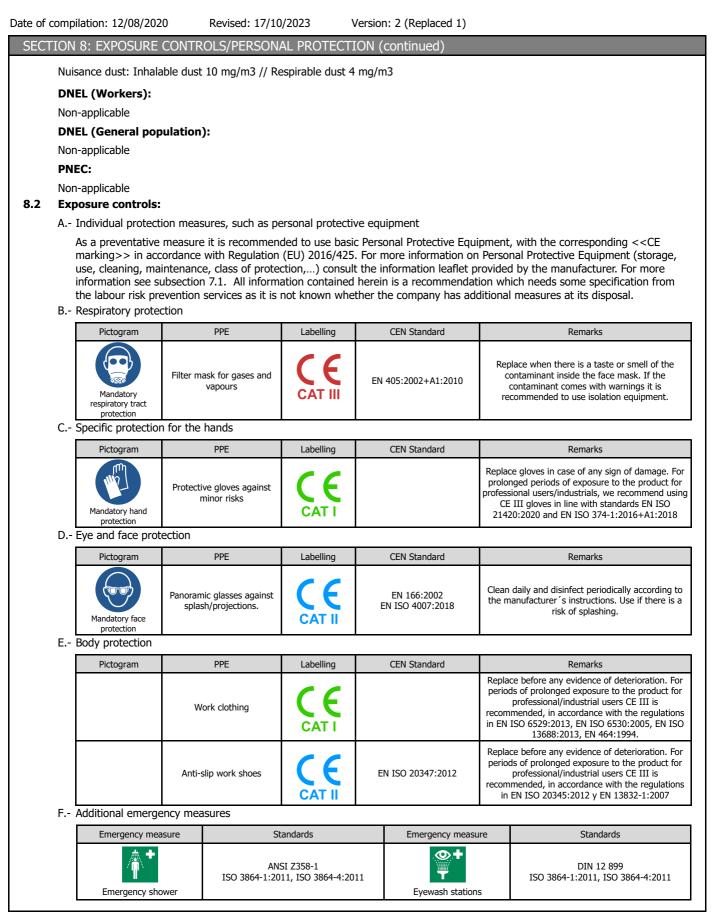
8.1 **Control parameters:**

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

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MB050 - RNase A

TION 8: EXPOSURE CONTROLS/PERSO	DNAL PROTECTION (continued)
Environmental exposure controls:	
In accordance with the community legislat	ion for the protection of the environment it is recommended to avoid environmental ner. For additional information see subsection 7.1.D
With regard to Directive 2010/75/EU, this	product has the following characteristics:
-	% weight
V.O.C. density at 20 °C: 0	kg/m³ (0 g/L)
Average carbon number: N	on-applicable
Average molecular weight: N	on-applicable
TION 9: PHYSICAL AND CHEMICAL PF	
Information on basic physical and che For complete information see the product	
Appearance:	
Physical state at 20 °C:	Solid
Appearance:	Not available
Colour:	White
Odour:	Odourless
Odour threshold:	Non-applicable *
Volatility:	
Boiling point at atmospheric pressure:	656 °C
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *
Product description:	
Density at 20 °C:	1400 kg/m³
Relative density at 20 °C:	1,4
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:	243 °C
Flammability:	
Flash Point:	351 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *

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

Safety data sheet legislation

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SECT	TION 9: PHYSICAL AND CHEMICAL PROPER	TIES (continued)
	Upper flammability limit:	Non-applicable *
	Explosive (Solid):	
	Lower explosive limit:	Non-applicable *
	Upper explosive limit:	Non-applicable *
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable *
9.2	Other information:	
	Information with regard to physical hazard	classes:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components:	e Non-applicable *
	Other safety characteristics:	
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing	j 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	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	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:

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):

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 hazardous for consumption Corrosivity/Irritability: E classified as hazardous for B- Inhalation (acute effect): Acute toxicity : Based of as hazardous for inhalation Corrosivity/Irritability: E classified as hazardous for Contact with the skin and for 	available data, the classi . For more information se ased on available data, th this effect. For more infor n available data, the class . For more information se ased on available data, th this effect. For more infor he eyes (acute effect):	fication criteria are not met, as it does not contain substances classifie e section 3 ne classification criteria are not met, as it does not contain substances rmation see section 3. sification criteria are not met, as it does not contain substances classifi e section 3. ne classification criteria are not met, as it does not contain substances
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- Contact with the skin: F	ased on available data. th	
classified as hazardous for	skin contact. For more in Based on available data, t this effect. For more info	he classification criteria are not met, as it does not contain substances mation see section 3.
 Carcinogenicity: Based as hazardous for the effect IARC: Non-applicable Mutagenicity: Based on hazardous for this effect. F 	on available data, the class s mentioned. For more in available data, the classif or more information see s ased on available data, th	sification criteria are not met, as it does not contain substances classif formation see section 3. ication criteria are not met, as it does not contain substances classified section 3. e classification criteria are not met, as it does not contain substances
 Skin: Based on available hazardous for this effect. F Specific target organ toxici 	data, the classification contraction of more information sees by (STOT) - single exposu	re:
this effect. For more inform G- Specific target organ toxici	ation see section 3.	e not met, as it does not contain substances classified as hazardous for sure:
it does not contain substar	ces classified as hazardou data, the classification c	posure: Based on available data, the classification criteria are not met, us for this effect. For more information see section 3. riteria are not met, as it does not contain substances classified as section 3.
Based on available data, th this effect. For more inform Other information:		e not met, as it does not contain substances classified as hazardous for
Non-applicable		
Specific toxicology informa	tion on the substances	S:
	Identification	Acute toxicity Genus
Nuclease, ribo- CAS: 9001-99-4		LD50 oral >2000 mg/kg LD50 dermal >2000 mg/kg
EC: 232-646-6		LC50 inhalation >5 mg/L
1.2 Information on other haza	rds:	· · · · · · · · · · · · · · · · · · ·
Endocrine disrupting prope	rties	
Endocrine-disrupting propertie		neet the criteria
Other information		

Non-applicable

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Based on a For more in 12.1 Too Not 12.2 Per Not 12.3 Bio	ot available ersistence and degradability: ot available ioaccumulative potential:
For more in 12.1 Toy Not 12.2 Per Not 12.3 Bio	information see section 3. pxicity: pt available ersistence and degradability: pt available ioaccumulative potential:
Not 12.2 Per Not 12.3 Bio	ot available ersistence and degradability: ot available ioaccumulative potential:
12.2 Per Not 12.3 Bio	ersistence and degradability: ot available ioaccumulative potential:
Not 12.3 Bio	ot available ioaccumulative potential:
12.3 Bio	ioaccumulative potential:
NOT	
40.4.14.	
	obility in soil:
	ot available
12.5 Res	esults of PBT and vPvB assessment:
Pro	oduct does not meet PBT/vPvB criteria
12.6 End	ndocrine disrupting properties:
End	ndocrine-disrupting properties: The product does not meet the criteria.
12.7 Oth	ther adverse effects:
Not	pt described

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 03 05*	organic wastes containing hazardous substances	Dangerous

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

HP13 Sensitising

Waste management (disposal and evaluation):

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

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

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SECTION 14: T	RANSPORT INFORMATION (continued)
14.1	UN number or ID number:	Non-applicable
14.2	UN proper shipping name:	Non-applicable
14.3	Transport hazard class(es):	Non-applicable
	Labels:	Non-applicable
	Packing group:	Non-applicable
_	Environmental hazards:	No
14.6	Special precautions for user	
	Special regulations:	Non-applicable
	Tunnel restriction code:	Non-applicable
	Physico-Chemical properties:	see section 9
	Limited quantities:	Non-applicable
14.7	Maritime transport in bulk	Non-applicable
	according to IMO instruments:	
Transpo	rt of dangerous goods by sea:	
With rega	ard to IMDG 40-20:	
14.1	UN number or ID number:	Non-applicable
14.2	UN proper shipping name:	Non-applicable
14.3	Transport hazard class(es):	Non-applicable
	Labels:	Non-applicable
14.4	Packing group:	Non-applicable
14.5	Marine pollutant:	No
14.6	Special precautions for user	
	Special regulations:	Non-applicable
	EmS Codes:	
	Physico-Chemical properties:	see section 9
	Limited quantities:	Non-applicable
	Segregation group:	Non-applicable
14.7	Maritime transport in bulk	Non-applicable
	according to IMO instruments:	
Transno	rt of dangerous goods by air:	
-	ard to IATA/ICAO 2023:	
_	UN number or ID number:	Non-applicable
	UN proper shipping name:	Non-applicable
	Transport hazard class(es):	Non-applicable
	Labels:	Non-applicable
14.4	Packing group:	Non-applicable
	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:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable Article 95, REGULATION (EU) No 528/2012: Non-applicable

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Date of compilation: 12/08/2020 Revised: 17/10/2023 Version: 2 (Replaced 1) SECTION 15: REGULATORY INFORMATION (continued) REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable Seveso III: Non-applicable Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc): Non-applicable 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 Texts of the legislative phrases mentioned in section 2: H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. 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: Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. Advice related to training: Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product. Principal bibliographical sources: http://echa.europa.eu http://eur-lex.europa.eu Abbreviations and acronyms: ADR: European agreement concerning the international carriage of dangerous goods by road IMDG: International maritime dangerous goods code IATA: International Air Transport Association ICAO: International Civil Aviation Organisation COD: Chemical Oxygen Demand BOD5: 5day biochemical oxygen demand BCF: Bioconcentration factor LD50: Lethal Dose 50 LC50: Lethal Concentration 50 EC50: Effective concentration 50 LogPOW: Octanolwater partition coefficient Koc: Partition coefficient of organic carbon UFI: unique formula identifier IARC: International Agency for Research on Cancer 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 o 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 -Date of compilation: 12/08/2020 Revised: 17/10/2023 Version: 2 (Replaced 1) Page 10/10