

# 12/03/2024 2 27/07/2023

# Product name: NZY DNA/RNA/Protein Isolation kit

Catalogue reference(s): MB45901, 50 columns

Components	MB45901	Safety Information	Unique Formula Identifier (UFI)
Buffer NDRPL	25 mL	See specific SDS	6270-U0DA-900G-2441
Buffer NDW (concentrate)	12 mL	Not Hazardous *	
Buffer NDE	12 mL	Not Hazardous *	
Buffer NDRPW1	15 mL	See specific SDS	5470-C02Q-K00Y-RFQ3
Buffer NDRPW2 (concentrate)	12 mL	Not Hazardous *	
RNase-free Water	13 mL	Not Hazardous *	
Buffer NPP	45 mL	See specific SDS	P770-U0S3-W00F-DT95
Buffer NPS (without reducing agent)	7.5 mL	Not Hazardous *	
Reducing Agent TCEP	107 mg	See specific SDS	XA70-C0FH-600Y-24V7
Digestion Buffer	7 mL	Not Hazardous *	
rDNAse (lyophilized)	1 vial	See specific SDS	
NZYSpin DRP Columns	50 un	Not Hazardous *	
NZYSpin Homogenization Filter Columns	50 un	Not Hazardous *	
Collection Tubes (1.5 mL)	100 un	Not Hazardous *	
Collection Tubes (2 mL)	150 un	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 (EU) No 2020/878.

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# MB459 - Buffer NDRPL

	MB459 - Buffer NDRPL				
Date of	compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2)				
SECT	TION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING				
1.1	Product identifier: MB459 - Buffer NDRPL				
	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	<b>Emergency telephone number:</b> National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.				
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.				
	Acute Tox. 4: Acute toxicity, Category 4, H302+H312+H332 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412 Eye Dam. 1: Serious eye damage, Category 1, H318 Skin Corr. 1C: Skin corrosion, Category 1C, H314				
2.2	Label elements:				
	CLP Regulation (EC) No 1272/2008:				
	Labelling of packages where the contents do not exceed 125 ml: Danger				
	Hazard statements:				
	Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects. Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.				
	Precautionary statements:				
	<ul> <li>P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.</li> <li>P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li> <li>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> </ul>				
	P310: Immediately call a poison center/doctor.				

# Supplementary information:

EUH032: Contact with acids liberates very toxic gas.

EUH071: Corrosive to the respiratory tract.

## Substances that contribute to the classification

Guanidinium thiocyanate

UFI: 6270-U0DA-900G-2441

2.3 **Other hazards:** 

\*\* Changes with regards to the previous version

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Date of	compilation: 13/07/2023	Revised: 12/03/2024	Version: 3 (Replaced 2)			
SEC	TION 2: HAZARDS IDI	ENTIFICATION ** (continu	ied)			
	Product does not meet PBT/vPvB criteria Endocrine-disrupting properties: The product does not meet the criteria.					
** Char	nges with regards to the pr	revious version				
SEC	ΤΙΟΝ 3. ΟΟΜΡΟΣΙΤΙΟ	DN/INFORMATION ON ING	REDIENTS **			
			NEDIEN15			
3.1	Substance:					
	Non-applicable					
2.2	Mixture:					
3.2						
3.2		n: Mixture of substances				
3.2		1: Mixture of substances				
3.2	Chemical description Components:		07/2006 (point 3), the product cor	itains:		
3.2	Chemical description Components:		07/2006 (point 3), the product cor Chemical name/Classification	itains:	Concentration	
3.2	Chemical description Components: In accordance with Ann Identification CAS: 593-84-0			itains: Self-classif		
3.2	Chemical description Components: In accordance with Ann Identification	Mex II of Regulation (EC) No 190		Self-classif		
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX	II of Regulation (EC) No 190         Guanidinium thiocyanate(1)         Regulation 1272/2008         Acute Tox. 4: Corr. 1C: H31	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412	Self-classif Eye Dam. 1: H318; Skin	ied 45 - <60 %	
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX	Image: Second state of the second s	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412 14; EUH071 - Danger teria laid down in Regulation (EU) No. 2020/87	Self-classif Eye Dam. 1: H318; Skin	ied 45 - <60 %	
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX (1) Substances presenting a heat To obtain more information	Guanidinium thiocyanate(1)         Guanidinium thiocyanate(1)         Regulation 1272/2008         Acute Tox. 4:         Corr. 1C: H31         Ith or environmental hazard which meet crit         ation on the hazards of the subs         for the substance in Part 3 of Au	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412 14; EUH071 - Danger	Self-classif Eye Dam. 1: H318; Skin 8 d 16.	ied 45 - <60 %	
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX (1) Substances presenting a heat To obtain more information Acute toxicity estimate	Guanidinium thiocyanate(1)         Guanidinium thiocyanate(1)         Regulation 1272/2008         Acute Tox. 4:         Corr. 1C: H31         Ith or environmental hazard which meet crit         ation on the hazards of the subs         for the substance in Part 3 of Au	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412 14; EUH071 - Danger teria laid down in Regulation (EU) No. 2020/87 stances consult sections 11, 12 and	Self-classif Eye Dam. 1: H318; Skin 8 d 16.	ied 45 - <60 %	
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX (1) Substances presenting a heat To obtain more information Acute toxicity estimate	Guanidinium thiocyanate(1)         Guanidinium thiocyanate(1)         Regulation 1272/2008         Acute Tox. 4: Corr. 1C: H33         Ith or environmental hazard which meet critation on the hazards of the substance in Part 3 of Acegulation:	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412 14; EUH071 - Danger teria laid down in Regulation (EU) No. 2020/87 stances consult sections 11, 12 and	Self-classif Eye Dam. 1: H318; Skin 8 d 16. 72/2008 or as determined	45 - <60 %	
3.2	Chemical description Components: In accordance with Ann CAS: 593-84-0 EC: 209-812-1 Index: Non-applicable REACH: 01-2120735072-65- XXXX (1) Substances presenting a heal To obtain more informat Acute toxicity estimate with Annex I to that Re	Guanidinium thiocyanate(1)         Guanidinium thiocyanate(1)         Regulation 1272/2008         Acute Tox. 4: Corr. 1C: H33         Ith or environmental hazard which meet critation on the hazards of the substance in Part 3 of Acegulation:	Chemical name/Classification : H302+H312+H332; Aquatic Chronic 3: H412 14; EUH071 - Danger teria laid down in Regulation (EU) No. 2020/87 stances consult sections 11, 12 an nnex VI to Regulation (EC) No 12	Self-classif Eye Dam. 1: H318; Skin 8 d 16. 72/2008 or as determined Acute toxicity	45 - <60 %	

## SECTION 4: FIRST AID MEASURES

#### Description of first aid measures: 4.1

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

## By inhalation:

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

## By skin contact:

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

## By eye contact:

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

## By ingestion/aspiration:

Request 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 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:

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Date of compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2) SECTION 4: FIRST AID MEASURES (continued) 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.

#### 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. 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.

#### **Environmental precautions:** 6.2

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

#### 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.

#### **Reference to other sections:** 6.4

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 with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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ECT		2/03/2024 V	ersion: 3 (Replace	d 2)		
	ION 7: HANDLING AND STORAGE (c	ontinu <u>ed)                                    </u>				
	B Technical recommendations for the pre	, i i i i i i i i i i i i i i i i i i i				
	Product is non-flammable under norma to avoid the generation of electrostatic conditions and materials that should be C Technical recommendations on genera Do not eat or drink during the process.	al conditions of stora charges that can a e avoided. I occupational hygie	age, handling and ffect flammable pro ne	oducts. Consult	section 10 for	
	D Technical recommendations to prevent	-		bie cleaning pro-		
7.2	Due to the danger of this product for t control barriers in case of spillage, as a <b>Conditions for safe storage, including</b>	he environment it is well as having absor	recommended to bent material in cl		area containir	ng contamination
	A Technical measures for storage					
	Store in a cool, dry, well-ventilated loc	ation				
	B General conditions for storage					
	Avoid sources of heat, radiation, static	electricity and cont	act with food. For	additional inform	nation see sub	section 10.5
7.3	Specific end use(s):					
	Except for the instructions already specifie	d it is not necessary	v to provide any sp	ecial recommen	dation regardi	ing the uses of this
	product.				-	
SECT.	ION 8: EXPOSURE CONTROLS/PERS	ONAL PROTECTI	ON			
3.1	Control parameters:					
	Substances whose occupational exposure	limits have to be mo	nitored in the wor	kplace (Europea	n OFL, not co	untry-specific
	legislation):					and y opcome
	There are no applicable occupational expo	sure limits for the s	ubstances containe	ed in the produc	t	
	DNEL (Workers):					
			Short	exposure	Lo	ng exposure
	Identification		Systemic	Local	Systemic	
	Guanidinium thiocyanate	Oral	Non-applicable	Non-applicable	Non-applicable	
	CAS: 593-84-0	Dermal	Non-applicable	Non-applicable	0,31 mg/kg	Non-applicable
	EC: 209-812-1	Inhalation	3,28 mg/m <sup>3</sup>	Non-applicable	1,092 mg/m <sup>3</sup>	Non-applicable
	DNEL (General population):					
			Short	exposure	Lo	ng exposure
	Identification		Systemic	Local	Systemic	
	Guanidinium thiocyanate	Oral	Non-applicable	Non-applicable	0,155 mg/kg	Non-applicable
	CAS: 593-84-0	Dermal	Non-applicable	Non-applicable	0,155 mg/kg	Non-applicable
	EC: 209-812-1	Inhalation	Non-applicable	Non-applicable	0,27 mg/m <sup>3</sup>	Non-applicable
	PNEC:			•		
	Identification					
	Guanidinium thiocyanate	STP	20 mg/L	Fresh water		0,0424 mg/L
	CAS: 593-84-0	Soil	0,00803 mg/kg	Marine water		0,00424 mg/L
		Intermittent	0,424 mg/L	Sediment (Fresl	n water)	0,165 mg/kg
	EC: 209-812-1			Sediment (Mari	ne water)	0,0165 mg/kg
		Oral	Non-applicable	Seament (Fiam		0,0105 mg/kg
8.2		Oral	Non-applicable	Sedimente (mani		0,0105 mg/kg
	EC: 209-812-1 Exposure controls:					0,0105 Hig/kg
8.2	EC: 209-812-1 <b>Exposure controls:</b> A Individual protection measures, such a As a preventative measure it is recomm	s personal protectiv nended to use basic	e equipment Personal Protectiv	ve Equipment, w		ponding < <ce< td=""></ce<>
	EC: 209-812-1 <b>Exposure controls:</b> A Individual protection measures, such a	s personal protectiv nended to use basic tion (EU) 2016/425.	e equipment Personal Protectiv For more informat	ve Equipment, w tion on Personal	Protective Eq	ponding < <ce uipment (storage,</ce 

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		PERSON/	AL PROTECT	ION (	continued)		
		TERSON			continueu)		
Pictogram	PPE		Labelling		CEN Standard		Remarks
Mandatory respiratory tract protection	Filter mask for vapour	-	CAT III	EN	405:2002+A1:2010	C	place when there is a taste or smell of the ontaminant inside the face mask. If the contaminant comes with warnings it is commended to use isolation equipment
C Specific protection	n for the hands	5					
Pictogram	PPE		Labelling		CEN Standard		Remarks
Mandatory hand protection	Chemical protec (Material: N Breakthrough ti min, Thickness:	Nitrile, ime: > 480		EI	N ISO 21420:2020	Repl	ace the gloves at any sign of deteriorati
	a mixture of se	everal subs	tances, the res	sistance	e of the glove mate	rial car	n not be calculated in advance w
total reliability an	d has therefore						
D Eye and face prot	ection						
Pictogram	PPE		Labelling		CEN Standard		Remarks
Mandatory face protection	Face shi	ield		E	EN 166:2002 EN 167:2002 EN 168:2002 N ISO 4007:2018		daily and disinfect periodically accordin nanufacturer´s instructions. Use if there risk of splashing.
E Body protection							
Pictogram	PPE		Labelling		CEN Standard		Remarks
Mandatory complete body protection	Disposable clc protection again risks	ist chemical		E	3034:2005+A1:2009 EN 168:2002 EN ISO 13982- 1:2004/A1:2010 N ISO 6529:2013 N ISO 6530:2005 EN 464:1994		r professional use only. Clean periodicall ording to the manufacturer's instructior
Mandatory foot protection	Safety footw protection again risk	st chemical			N ISO 20345:2011 EN 13832-1:2019	Re	place boots at any sign of deterioration
F Additional emerge	ency measures						
Emergency mea	asure	St	andards		Emergency meas	ure	Standards
Emergency sho			5I Z358-1 11, ISO 3864-4:20	)11	Eyewash station	IS	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:201
Environmental exp	osure contro	ls:					
•	ne community l	legislation	•				nmended to avoid environmenta
spillage of both the p							
spillage of both the p Volatile organic co	mpounds:		duct has the fol	llowina	characteristics:		
spillage of both the p <b>Volatile organic co</b> With regard to Direct	mpounds:	J, this proc		llowing	characteristics:		
pillage of both the p <b>/olatile organic co</b> Vith regard to Direct V.O.C. (Supply):	<b>mpounds:</b> ive 2010/75/El	J, this proc 0 % v	weight	llowing	characteristics:		
pillage of both the p <b>'olatile organic co</b> Vith regard to Direct	<b>mpounds:</b> ive 2010/75/EU 20 ºC:	J, this proc 0 % v 0 kg/i		llowing	characteristics:		

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#### Date of compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2) SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES 9.1 Information on basic physical and chemical properties: For complete information see the product datasheet. **Appearance:** Physical state at 20 °C: Liquid Appearance: Not available Colour: Colourless Odour: Odourless Odour threshold: Non-applicable \* Volatility: 100 °C Boiling point at atmospheric pressure: Vapour pressure at 20 °C: 2350 Pa 12381,01 Pa (12,38 kPa) Vapour pressure at 50 °C: Evaporation rate at 20 °C: Non-applicable \* **Product description:** Density at 20 °C: 1072,7 kg/m<sup>3</sup> 1,073 Relative density at 20 °C: Dynamic viscosity at 20 °C: 2,54 cP Kinematic viscosity at 20 °C: 2,37 mm<sup>2</sup>/s Kinematic viscosity at 40 °C: Non-applicable \* Concentration: Non-applicable \* pH: 6,5 - 7,5 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 \* Non-applicable \* Decomposition temperature: 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 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 Non-applicable \* components: Other safety characteristics: \*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

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SECT	TON 9: PHYSICAL AND C	HEMICAL PROPERTI	.ES (continuea)				
	Surface tension at 20 °C:		Non-applicable *				
	Refraction index:		Non-applicable *				
	*Not relevant due to the nature of	the product, not providing in	formation property of its hazards	5.			
SECT	ION 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.						
	2 Chemical stability:						
10.2	-						
10.2	-	indicated conditions of	storage, handling and use.				
	Chemical stability:		storage, handling and use.				
	Chemical stability: Chemically stable under the	reactions:		peratures or pressure are	e not expected.		
10.3	Chemical stability: Chemically stable under the Possibility of hazardous a Under the specified condition	reactions:		peratures or pressure are	e not expected.		
10.3	Chemical stability: Chemically stable under the Possibility of hazardous a Under the specified condition	reactions: ns, hazardous reactions	that lead to excessive tem	peratures or pressure are	e not expected.		
10.3	Chemical stability: Chemically stable under the Possibility of hazardous of Under the specified condition Conditions to avoid:	reactions: ns, hazardous reactions	that lead to excessive tem	peratures or pressure are Sunlight	e not expected. Humidity		
10.3	Chemical stability: Chemically stable under the Possibility of hazardous of Under the specified condition Conditions to avoid: Applicable for handling and	reactions: ns, hazardous reactions storage at room temper	that lead to excessive temp				
10.3 10.4	Chemical stability: Chemically stable under the Possibility of hazardous in Under the specified condition Conditions to avoid: Applicable for handling and s Shock and friction	reactions: ns, hazardous reactions storage at room temper Contact with air	that lead to excessive tem ature: Increase in temperature	Sunlight	Humidity		
10.3 10.4	Chemical stability: Chemically stable under the Possibility of hazardous of Under the specified condition Conditions to avoid: Applicable for handling and s Shock and friction Not applicable	reactions: ns, hazardous reactions storage at room temper Contact with air	that lead to excessive tem ature: Increase in temperature	Sunlight	Humidity		

## 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: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

- 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 : Can be fatal after prolonged periods of exposure, as it releases toxic gases when it comes into contact with acids

- Corrosivity/Irritability: Corrosive to the respiratory tract

- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns.
  - For more information on the secondary effects see section 2.
  - Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

\*\* Changes with regards to the previous version

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_	ION II: TOXICOLOGI	ICAL INFORMATION ** (continued)			
	as hazardous for the IARC: Non-applical - Mutagenicity: Bas hazardous for this eff - Reproductive toxic	ased on available data, the classification crite effects mentioned. For more information see ble ed on available data, the classification criteria fect. For more information see section 3. city: Based on available data, the classificatio us for this effect. For more information see se	section 3. a are not met, as n criteria are not	it does not contain substar	nces classified a
	<ul> <li>Respiratory: Based hazardous with sensi</li> <li>Skin: Based on av hazardous for this efficiency</li> </ul>	d on available data, the classification criteria tising effects. For more information see secti ailable data, the classification criteria are not fect. For more information see section 3. toxicity (STOT) - single exposure:	on 3.		
	this effect. For more	ata, the classification criteria are not met, as information see section 3. toxicity (STOT)-repeated exposure:	it does not contai	n substances classified as	hazardous for
	<ul> <li>Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are it does not contain substances classified as hazardous for this effect. For more information see section 3.</li> <li>Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified hazardous for this effect. For more information see section 3.</li> <li>H- Aspiration hazard:</li> </ul>				
	H- Aspiration hazard:				
	Based on available da	ata, the classification criteria are not met, as information see section 3.	it does not contai	n substances classified as	hazardous for
	Based on available dathis effect. For more Other information: Non-applicable	information see section 3.	it does not contai		
	Based on available da this effect. For more <b>Other information:</b> Non-applicable <b>Specific toxicology inf</b>	information see section 3.		Acute toxicity	Genus
	Based on available da this effect. For more <b>Other information:</b> Non-applicable <b>Specific toxicology inf</b> Guanidinium thiocyanate	information see section 3.	LD50 oral	Acute toxicity 593 mg/kg	
	Based on available da this effect. For more <b>Other information:</b> Non-applicable <b>Specific toxicology inf</b> Guanidinium thiocyanate CAS: 593-84-0	information see section 3.	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi)	Genus
	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1	information see section 3. formation on the substances:	LD50 oral	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi)	Genus
	Based on available da this effect. For more <b>Other information:</b> Non-applicable <b>Specific toxicology inf</b> Guanidinium thiocyanate CAS: 593-84-0	information see section 3. formation on the substances: Identification te (ATE mix):	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) n 11 mg/L (ATEi)	Genus Rat
	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) n 11 mg/L (ATEi) Ingredient(s) of unkno	Genus Rat
	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method)	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) on 11 mg/L (ATEi) Ingredient(s) of unkno 0 %	Genus Rat
	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal	Identification  te (ATE mix):  ATE mix  1005,08 mg/kg (Calculation method)  1864,41 mg/kg (Calculation method)	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat
1 7	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal Inhalation	information see section 3.  formation on the substances:  Identification  te (ATE mix):  ATE mix  1005,08 mg/kg (Calculation method)  1864,41 mg/kg (Calculation method)  18,64 mg/L (4 h) (Calculation method)	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) on 11 mg/L (ATEi) Ingredient(s) of unkno 0 %	Genus Rat
1.2	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal Inhalation Information on other	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method) 1864,41 mg/kg (Calculation method) 18,64 mg/L (4 h) (Calculation method) hazards:	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat
1.2	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal Inhalation	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method) 1864,41 mg/kg (Calculation method) 18,64 mg/L (4 h) (Calculation method) hazards:	LD50 oral LD50 dermal	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat
1.2	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal Inhalation Information on other Endocrine disrupting	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method) 1864,41 mg/kg (Calculation method) 18,64 mg/L (4 h) (Calculation method) hazards:	LD50 oral LD50 dermal LC50 inhalatio	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat
1.2	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Oral Dermal Inhalation Information on other Endocrine disrupting	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method) 1864,41 mg/kg (Calculation method) 18,64 mg/L (4 h) (Calculation method) hazards: properties	LD50 oral LD50 dermal LC50 inhalatio	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat
1.2	Based on available da this effect. For more Other information: Non-applicable Specific toxicology inf Guanidinium thiocyanate CAS: 593-84-0 EC: 209-812-1 Acute Toxicity Estima Dermal Inhalation Information on other Endocrine disrupting pro	information see section 3. formation on the substances: Identification te (ATE mix): ATE mix 1005,08 mg/kg (Calculation method) 1864,41 mg/kg (Calculation method) 18,64 mg/L (4 h) (Calculation method) hazards: properties	LD50 oral LD50 dermal LC50 inhalatio	Acute toxicity 593 mg/kg 1100 mg/kg (ATEi) nn 11 mg/L (ATEi) Ingredient(s) of unkno 0 % 0 %	Genus Rat

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

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

\*\* Changes with regards to the previous version

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legislation

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ECT	ION 12: ECOLOGICAL INFORMATI	.ON ** (conti	nued)					
	Identification			Concentration		Species		Genus
	Guanidinium thiocyanate		LC50	89,1 mg/L (96 h)		Poecilia reticulata		Fish
	CAS: 593-84-0		EC50	42,4 mg/L (48 h)		Daphnia magna		Crustacean
	EC: 209-812-1		EC50	130 mg/L (72 h)		Desmodesmus subspica	atus	Algae
.2.2	Persistence and degradability:							
	Substance-specific information:							
	Identification		D	egradability		Biodegradab	ility	
	Guanidinium thiocyanate	BODS	5	Non-applicable	Conce	ntration	343 mg	g/L
	CAS: 593-84-0	COD		Non-applicable	Period		28 day	S
	EC: 209-812-1	BOD	5/COD	Non-applicable	% Bio	degradable	32 %	
2.3	Bioaccumulative potential:							
	Not available							
L <b>2.4</b>	Mobility in soil:							
	Not available							
2.5	Results of PBT and vPvB assessme	nt:						
	Product does not meet PBT/vPvB criteri	а						
L <b>2.6</b>	Endocrine disrupting properties:							
	Endocrine-disrupting properties: The pr	oduct does not	meet tl	ne criteria.				
L <b>2.7</b>	Other adverse effects:							

# 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):

HP14 Ecotoxic, HP12 Release of an acute toxic gas, HP6 Acute Toxicity, 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

Safety data sheet legislation

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Date of compilation: 13/07/20	23	Revised: 12/03/2024	Version: 3 (Replaced 2)
SECTION 14: TRANSPO	ORT I	NFORMATION ** (continued	)
1	L4.2	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels:	UN1760 CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate) 8 8
1	L4.5	Packing group: Environmental hazards: Special precautions for user	III No
		Special regulations: Tunnel restriction code: Physico-Chemical properties: Limited quantities:	274 E see section 9 5 L
1	L4.7	Maritime transport in bulk according to IMO instruments:	Non-applicable
Transport of dan			
With regard to IMD			
		UN number or ID number:	UN1760
		UN proper shipping name: Transport hazard class(es): Labels:	CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate) 8 8
	L4.4	Packing group:	III
		Marine pollutant:	No
1	L4.6	Special precautions for user	274 222
		Special regulations: EmS Codes:	274, 223
		Physico-Chemical properties: Limited quantities:	F-A, S-B see section 9 5 L
		Segregation group:	Non-applicable
1	L4.7	Maritime transport in bulk according to IMO instruments:	Non-applicable
Transport of dan	gero		
With regard to IATA	A/ICA	O 2023:	
1	L4.1	UN number or ID number:	UN1760
		UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)
8		Transport hazard class(es): Labels:	8 8
		Packing group:	
		Environmental hazards: Special precautions for user	No
	-7.0	Physico-Chemical properties:	see section 9
1	14.7	Maritime transport in bulk	Non-applicable
	L-T./	according to IMO instruments:	
** Changes with regards to the	e prev	ious version	

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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	compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2)						
SECT	TON 15: REGULATORY INFORMATION (continued)						
	Article 95, REGULATION (EU) No 528/2012: Non-applicable						
	REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable						
	Seveso III:						
	Non-applicable						
	Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):						
	Shall not be used in: —ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, —tricks and jokes, —games for one or more participants, or any article intended to be used as such, even with ornamental aspects. <b>Specific provisions in terms of protecting people or the environment:</b>						
	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.						
DECT	<b>Legislation related to safety data sheets:</b> 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						
BECT	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.:						
DECI	<b>Legislation related to safety data sheets:</b> 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).						
SECI	<ul> <li>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).</li> <li>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 Guanidinium thiocyanate (593-84-0) • Removed substances     </li> </ul>						
SECI	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):         <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> </li> </ul>						
	<ul> <li>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).</li> <li>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 Guanidinium thiocyanate (593-84-0) • Removed substances     </li> </ul>						
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DEGI	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):</li> <li>New declared substances         Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances 105</li> <li>Substances that contribute to the classification (SECTION 2):</li> <li>New declared substances         Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances         Guanidinium thiocyanate (593-84-0)</li> <li>CP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):</li> </ul>						
DECI	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> </li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> <li>Substances 105</li> <li>CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): <ul> <li>Hazard statements</li> </ul> </li>						
DECI	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 Guanidinium thiocyanate (593-84-0) · Removed substances Dangerous substance 105 Substances that contribute to the classification (SECTION 2): · New declared substances Guanidinium thiocyanate (593-84-0) · Removed substances Dangerous substance 105 CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): · Hazard statements · Supplementary information						
DECI	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> </li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> <li>Substances 105</li> <li>CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): <ul> <li>Hazard statements</li> </ul> </li>						
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DECT	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> </li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> <li>CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): <ul> <li>Hazard statements</li> <li>Supplementary information</li> </ul> </li> <li>TRANSPORT INFORMATION (SECTION 14): <ul> <li>Packing group</li> </ul> </li> <li>Texts of the legislative phrases mentioned in section 2:</li> <li>H314: Causes severe skin burns and eye damage.</li>						
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DECT	<ul> <li>Legislation related to safety data sheets:</li> <li>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).</li> <li>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</li> <li>COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> </li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> </ul> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> <li>Substances that contribute to the classification (SECTION 2): <ul> <li>New declared substances</li> <li>Guanidinium thiocyanate (593-84-0)</li> </ul> </li> <li>Removed substances</li> <li>Dangerous substance 105</li> <li>CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): <ul> <li>Hazard statements</li> <li>Supplementary information</li> </ul> </li> <li>TRANSPORT INFORMATION (SECTION 14): <ul> <li>Packing group</li> </ul> </li> <li>Texts of the legislative phrases mentioned in section 2:</li> <li>H314: Causes severe skin burns and eye damage.</li>						
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# MB459 - Buffer NDRPL

Date of compilation: 13/07/2023	Revised: 12/03/2024	Version: 3 (Replaced 2)
SECTION 16: OTHER INFORM	ATION ** (continued)	
Classification procedure: Skin Corr. 1C: Calculation me Eye Dam. 1: Calculation me Aquatic Chronic 3: Calculation Acute Tox. 4: Calculation me Advice related to training Training is recommended in	ethod hod on method thod J:	risks for staff using this product and to facilitate their comprehension and
interpretation of this safety of Principal bibliographical	data sheet, as well as the la	
http://echa.europa.eu http://eur-lex.europa.eu		
Abbreviations and acrony		
ADR: European agreement on IMDG: International maritim	5	carriage of dangerous goods by road
IATA: International Air Trans	5 5	
ICAO: International Civil Avi		
COD: Chemical Oxygen Dem		
BOD5: 5day biochemical oxy BCF: Bioconcentration factor		
LD50: Lethal Dose 50		
LC50: Lethal Concentration	50	
EC50: Effective concentratio		
LogPOW: Octanolwater parti		
Koc: Partition coefficient of o UFI: unique formula identifie		
IARC: International Agency		

\*\* 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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# legislation MB459 - Buffer NDRPW1

	MB459 - Buller NDRPW1
ate of	compilation: 13/07/2023 Revised: 12/03/2024 Version: 4 (Replaced 3)
SECT	TION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1	
1.1	Product identifier: MB459 - Buffer NDRPW1 Other means of identification:
1.2	Non-applicable Relevant identified uses of the substance or mixture and uses advised against:
1.2	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	<b>Emergency telephone number:</b> National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.
SEC	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.
	Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412 Eye Dam. 1: Serious eye damage, Category 1, H318 Flam. Liq. 3: Flammable liquids, Category 3, H226 Skin Corr. 1C: Skin corrosion, Category 1C, H314
2.2	Label elements:
	CLP Regulation (EC) No 1272/2008:
	Labelling of packages where the contents do not exceed 125 ml:
	Danger
	Hazard statements:
	Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
	Skin Corr. 1C: H314 - Causes severe skin burns and eye damage. Precautionary statements:
	<ul> <li>P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.</li> <li>P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li> <li>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>Supplementary information:</li> </ul>
	EUH032: Contact with acids liberates very toxic gas.

EUH071: Corrosive to the respiratory tract.

## Substances that contribute to the classification

Guanidinium thiocyanate

UFI: 5470-C02Q-K00Y-RFQ3

**Other hazards:** 2.3

\*\* Changes with regards to the previous version

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# MB459 - Buffer NDRPW1

Date of compilation: 13/07/2023 Revised: 12/03/2024 Version: 4 (Replaced 3) SECTION 2: HAZARDS IDENTIFICATION \*\* (continued) Product does not meet PBT/vPvB criteria Endocrine-disrupting properties: The product does not meet the criteria. \*\* Changes with regards to the previous version SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\* 3.1 Substance: 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: Chemical name/Classification Identification Concentration 593-84-0 CAS: Guanidinium thiocyanate<sup>(1)</sup> Self-classified EC: 209-812-1 30 - <45 % Acute Tox. 4: H302+H312+H332; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Corr. 1C: H314; EUH071 - Danger Index: Non-applicable REACH: 01-2120735072-65-()Regulation 1272/2008 XXXX 64-17-5 200-578-6 ethanol<sup>(2)</sup> ATP CLP00 CAS EC: 20 - <35 % Index 603-002-00-5 Flam. Lig. 2: H225 - Danger Regulation 1272/2008 REACH: 01-2119457610-43-XXXX

(1) Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878 (2) Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

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

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

Identification	Acut	Genus	
Guanidinium thiocyanate	LD50 oral	Non-applicable	
CAS: 593-84-0	LD50 dermal	1100 mg/kg (ATEi)	
EC: 209-812-1	LC50 inhalation	11 mg/L (ATEi)	

\*\* Changes with regards to the previous version

# SECTION 4: FIRST AID MEASURES

#### **Description of first aid measures:** 4.1

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

#### By inhalation:

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

## By skin contact:

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

#### By eye contact:

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

## By ingestion/aspiration:

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SECTION 4: FIRST AID MEAS	URES (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 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:

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.

#### Special hazards arising from the substance or mixture: 5.2

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

#### Personal precautions, protective equipment and emergency procedures: 6.1

#### 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.

#### **Environmental precautions:** 6.2

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

#### 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.

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		and (Daula and	2)		
		on: 4 (Replaced	3)		
SECI	TION 7: HANDLING AND STORAGE				
7.1	Precautions for safe handling:				
	A General precautions for safe use				
	Comply with the current legislation concerning the prevention spills and residues, destroying them with safe methods (section cleanliness where dangerous products are used. B Technical recommendations for the prevention of fires and ex	on 6). Avoid leaka			
		•	control courcos	of ignition (mobi	ila phonos
	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, applyi 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 securit requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements 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.				
	Do not eat or drink during the process, washing hands afterw	ards with suitable	e cleaning produ	icts.	
	D Technical recommendations to prevent environmental risks				
	Due to the danger of this product for the environment it is re- control barriers in case of spillage, as well as having absorber			rea containing co	ontamination
7.2	Conditions for safe storage, including any incompatibilitie	25:			
	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 ac	dditional informa	tion see subsect	tion 10.5
7.3	Specific end use(s):				
	Except for the instructions already specified it is not necessary to product.	provide any spec	cial recommenda	ation regarding t	he uses of this
SEC	TION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION				
8.1	Control parameters:				
	Substances whose occupational exposure limits have to be monit legislation): There are no applicable occupational exposure limits for the subs			OEL, not countr	y-specific
	DNEL (Workers):				
		Short ex	posure	Long ex	xposure
	Identification	Systemic	Local	Systemic	Local

			-		
Identification		Systemic	Local	Systemic	Local
Guanidinium thiocyanate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 593-84-0	Dermal	Non-applicable	Non-applicable	0,31 mg/kg	Non-applicable
EC: 209-812-1	Inhalation	3,28 mg/m <sup>3</sup>	Non-applicable	1,092 mg/m <sup>3</sup>	Non-applicable
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 e	xposure	Long ex	kposure
Identification		Systemic	Local	Systemic	Local
Guanidinium thiocyanate	Oral	Non-applicable	Non-applicable	0,155 mg/kg	Non-applicable
CAS: 593-84-0	Dermal	Non-applicable	Non-applicable	0,155 mg/kg	Non-applicable
EC: 209-812-1	Inhalation	Non-applicable	Non-applicable	0,27 mg/m <sup>3</sup>	Non-applicable

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Date of compilation: 13/07/2023

Revised: 12/03/2024

Version: 4 (Replaced 3)

		Short	exposure	Long	exposure
Identification		Systemic	Local	Systemic	Local
ethanol	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicab
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicab
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	114 mg/m <sup>3</sup>	Non-applicab
EC: 200-578-6 PNEC:	Inhalation	Non-applicable	Non-applicable	114 mg/m <sup>3</sup>	Non-

Identification				
Guanidinium thiocyanate	STP	20 mg/L	Fresh water	0,0424 mg/L
CAS: 593-84-0	Soil	0,00803 mg/kg	Marine water	0,00424 mg/L
EC: 209-812-1	Intermittent	0,424 mg/L	Sediment (Fresh water)	0,165 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0165 mg/kg
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

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

## C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.11 mm)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

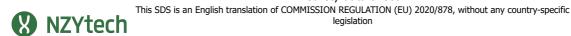
As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

# 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, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982- 1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions



# legislation

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ION 8: EXPOSURE CONTRO	LS/PERSON/	AL PROTECTI	ON (continued)		
Pictogram	PPE	Labelling	CEN Standard		Remarks
Safety for protection a risk, with and	ootwear for gainst chemical tistatic and heat t properties		EN ISO 13287:2020 EN ISO 20345:2011 EN 13832-1:2019	Re	eplace boots at any sign of deterioration
F Additional emergency measu	res				
Emergency measure	St	andards	Emergency meas	ure	Standards
Emergency shower		SI Z358-1 11, ISO 3864-4:20	11 Eyewash station	าร	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:20
<b>Environmental exposure con</b> In accordance with the commun spillage of both the product and	ity legislation its container.				
Volatile organic compounds:					
With regard to Directive 2010/75 V.O.C. (Supply):		weight	iowing characteristics:		
		-	45 a/l )		
V.O.C. density at 20 °C: 326,45 kg/m <sup>3</sup> (326,45 g/L)					
Average carbon number	2				
Average carbon number: Average molecular weight: ION 9: PHYSICAL AND CHEN		g/mol		_	
Average molecular weight: ION 9: PHYSICAL AND CHEM	46,1 g 4ICAL PROP al and chemi	PERTIES	51		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the	46,1 g 4ICAL PROP al and chemi	PERTIES	;:	_	
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance:	46,1 g 4ICAL PROP al and chemi	PERTIES cal properties asheet.			
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C:	46,1 g 4ICAL PROP al and chemi	PERTIES Scal properties asheet. Liqui	d		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance:	46,1 g 4ICAL PROP al and chemi	PERTIES cal properties asheet. Liqui Not a	d available		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour:	46,1 g 4ICAL PROP al and chemi	PERTIES Ical properties asheet. Liqui Not a Color	d available urless		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour:	46,1 g 4ICAL PROP al and chemi	PERTIES Scal properties asheet. Liqui Not a Color Alcoh	d available urless nol		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour: Odour threshold:	46,1 g 4ICAL PROP al and chemi	PERTIES Scal properties asheet. Liqui Not a Color Alcoh	d available urless		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour: Odour threshold: Volatility:	46,1 g	PERTIES Scal properties asheet. Liqui Not a Colou Alcoh Non-	d available urless nol applicable *		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour: Odour threshold: Volatility: Boiling point at atmospheric press	46,1 g	PERTIES Cal properties asheet. Liqui Not a Colou Alcoh Non- 86 90	d available urless nol applicable *		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric pressive at 20 °C:	46,1 g	PERTIES Cal properties asheet. Liqui Not a Color Alcoh Non- 86 % 3948	d available urless nol applicable * C		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric press Vapour pressure at 20 °C: Vapour pressure at 50 °C:	46,1 g	PERTIES Fical properties asheet. Liqui Not a Colou Alcor Non- 86 °C 3948 1934	d available urless nol applicable * C F Pa 7,97 Pa (19,35 kPa)		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour: Odour threshold: Volatility: Boiling point at atmospheric prese Vapour pressure at 20 °C: Vapour pressure at 50 °C: Evaporation rate at 20 °C:	46,1 g	PERTIES Fical properties asheet. Liqui Not a Colou Alcor Non- 86 °C 3948 1934	d available urless nol applicable * C		
Average molecular weight: INFORMATION ON DASIC PHYSICAL AND CHEM Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric prese Vapour pressure at 20 °C: Vapour pressure at 20 °C: Evaporation rate at 20 °C: Evaporation rate at 20 °C: Product description:	46,1 g	PERTIES Cal properties asheet. Liqui Not a Color Alcoh Non- 86 % 3948 1934 Non-	d available urless nol applicable * C 5 Pa 7,97 Pa (19,35 kPa) applicable *		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric press Vapour pressure at 20 °C: Vapour pressure at 50 °C: Evaporation rate at 20 °C: Product description: Density at 20 °C:	46,1 g	PERTIES Cal properties asheet. Liqui Not a Colou Alcor Non- 86 °C 3948 1934 Non- 1030	d available urless nol applicable * C Pa 7,97 Pa (19,35 kPa) applicable *		
Average molecular weight: INFORMATION ON DASIC PHYSICAL AND CHEM Information on basic physical For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric prese Vapour pressure at 20 °C: Evaporation rate at 20 °C: Evaporation rate at 20 °C: Product description: Density at 20 °C: Relative density at 20 °C:	46,1 g	PERTIES Cal properties asheet. Liqui Not a Colou Alcoh Non- 86 °C 3948 1934 Non- 1030 0,96	d available urless nol applicable * C Pa 7,97 Pa (19,35 kPa) applicable *		
Average molecular weight: ION 9: PHYSICAL AND CHEN Information on basic physica For complete information see the Appearance: Physical state at 20 °C: Appearance: Colour: Odour threshold: Volatility: Boiling point at atmospheric press Vapour pressure at 20 °C: Vapour pressure at 50 °C: Evaporation rate at 20 °C: Product description: Density at 20 °C:	46,1 g	PERTIES Fical properties asheet. Liqui Not a Colou Alcor Non- 86 °C 3948 1934 Non- 1030 0,96 2,24	d available urless nol applicable * C Pa 7,97 Pa (19,35 kPa) applicable *		

Non-applicable \*

Non-applicable \* 7 - 7,5

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

- CONTINUED ON NEXT PAGE -

Non-applicable \*

Concentration:

Vapour density at 20 °C:

pH:

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# legislation MB459 - Buffer NDRPW1

Date of	compilation: 13/07/2023 Revised: 12/03/2024	Version: 4 (Replaced 3)
SECT	TION 9: PHYSICAL AND CHEMICAL PROPERT	IES (continued)
	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:	28 °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 cl	asses:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components:	Non-applicable *
	Other safety characteristics:	
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing in	formation property of its hazards.

# SECTION 10: STABILITY AND REACTIVITY

## 10.1 Reactivity:

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

# 10.2 Chemical stability:

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

# 10.3 Possibility of hazardous reactions:

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

## **10.4** Conditions to avoid:

Applicable for handling and storage at room temperature:

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

# **10.5** Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Produces very toxic gases	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.

\*\* Changes with regards to the previous version

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Date of c	ompilation: 13/07/2023	Revised: 12/03/2024	Version: 4 (Re	placed 3)			
SECT	ION 11: TOXICOLOGICA	_ INFORMATION **					
11.1	Information on hazard cl	asses as defined in Regul	ation (EC) No 12	272/2008:			
	The experimental informatio	n related to the toxicological	properties of the	product itself is not	t available		
	Dangerous health implica	itions:					
	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):						
		nsumption of a considerable	dose can cause in	itation in the throa	at, abdominal pain, nau	sea and	
	<ul> <li>vomiting.</li> <li>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.</li> <li>B- Inhalation (acute effect):</li> </ul>						
		e fatal after prolonged perio	ds of exposure, as	it releases toxic g	ases when it comes int	o contact with	
	acids - Corrosivity/Irritability: C- Contact with the skin and	Corrosive to the respiratory I the eyes (acute effect):	tract				
	For more information on	Above all, skin contact may the secondary effects see se Produces serious eye dama city, mutagenicity and toxicit	ection 2. age after contact.		n be destroyed, resultii	ng in burns.	
	<ul> <li>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.         <ul> <li>IARC: ethanol (1)</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul> </li> <li>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.</li> <li>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.</li> </ul>						
	hazardous with sensitisin - Skin: Based on availal hazardous for this effect.	available data, the classifica g effects. For more informat le data, the classification cri For more information see se city (STOT) cincle exposure	ion see section 3. iteria are not met, ection 3.				
	F- Specific target organ toxi			c not contain cubc	tancos classified as has	vardauc for	
	this effect. For more info						
	<ul> <li>G- Specific target organ toxicity (STOT)-repeated exposure:</li> <li>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.</li> <li>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 substances classified as hazardous for this effect. For more information see section 3.</li> <li>H- Aspiration hazard:</li> </ul>						
	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 inform	nation on the substances	:				
		Identification		Acut	e toxicity	Genus	
	Guanidinium thiocyanate			LD50 oral	593 mg/kg	Rat	
	CAS: 593-84-0			LD50 dermal	1100 mg/kg (ATEi)		
	EC: 209-812-1			LC50 inhalation	11 mg/L (ATEi)		

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Date of compilation: 13/07/2023	Revised: 12/03/2024	Version: 4 (Re	placed 3)				
SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)							
	Identification Acute toxicity Genus						
ethanol			LD50 oral 6200 mg/kg		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 (	Acute Toxicity Estimate (ATE mix):						
	ATE mix				Ingredient(s) of unknow	n toxicity	
Oral	Oral 1347,73 mg/kg (Calculation method)			0 %			

0 %

0 %

#### 11.2 Information on other hazards:

# **Endocrine disrupting properties**

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

#### **Other information**

Non-applicable

Dermal

Inhalation

\*\* Changes with regards to the previous version

# SECTION 12: ECOLOGICAL INFORMATION \*\*

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

2500 mg/kg (Calculation method)

25 mg/L (4 h) (Calculation method)

Harmful to aquatic life with long lasting effects.

# 12.1 Toxicity:

#### Acute toxicity:

				-
Identification		Concentration	Species	Genus
Guanidinium thiocyanate	LC50	89,1 mg/L (96 h)	Poecilia reticulata	Fish
CAS: 593-84-0	EC50	42,4 mg/L (48 h)	Daphnia magna	Crustacean
EC: 209-812-1	EC50	130 mg/L (72 h)	Desmodesmus subspicatus	Algae
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	Degra	adability	Biodegradability	
Guanidinium thiocyanate	BOD5	Non-applicable	Concentration	343 mg/L
CAS: 593-84-0	COD	Non-applicable	Period	28 days
EC: 209-812-1	BOD5/COD	Non-applicable	% Biodegradable	32 %
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	Bioaccumulation potential		
ethanol	BCF	3	
CAS: 64-17-5	Pow Log	-0.31	
EC: 200-578-6	Potential	Low	

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	TION 12: ECOLO	GICAL	INFORMATION ** (co	ntinued)				
2.4	Mobility in soil	:						
		Identifi	cation	Absorp	ption/desorption		Volatility	
	ethanol		Ko	ос	1	Henry	4,61E-1 Pa·m <sup>3</sup> ,	/mol
	CAS: 64-17-5		Ca	onclusion	Very High	Dry soil	Yes	
	EC: 200-578-6		Su	urface tension	2,339E-2 N/m (25 °C)	Moist soil	Yes	
2.5	Results of PBT	and vP	B assessment:					
	Product does not	meet Pl	BT/vPvB criteria					
2.6	6 Endocrine disrupting properties:							
	Endocrine-disrupting properties: The product does not meet the criteria.							
2.7	Other adverse	effects:						
	Not described							
han	ges with regards to	the nrei	vious version					
indin <u>e</u>	ges man regulas te	and pres						
ECT	TION 13: DISPO	SAL CC	NSIDERATIONS					
3.1	Waste treatme	nt meth	ods:					
	Code			Description			Waste class (Regulation (E 1357/2014)	EU) No
	It	is not pos	ible to assign a specific code, a	s it depends on	the intended use by the us	ser	Dangerous	
	Turne of success	(Denula	Hen (FU) No 1257/201	4).	·			
	Type of waste (Regulation (EU) No 1357/2014):							
				-				
	-	IP3 Flam	mable, HP12 Release of an	acute toxic g	gas, HP6 Acute Toxici	ty, HP8 Corro	osive	
	Waste manage Consult the auth 2 (Directive 2008 the product, it w	IP3 Flam ment (c orized wa B/98/EC). ill be pro		a acute toxic o acute toxic o acut	t and disposal operati	ons in accord	dance with Annex 1 and been in direct contact v	with
	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no <b>Regulations re</b> In accordance w management are	IP3 Flam ment (c prized wa 3/98/EC). ill be pro t be disp lated to ith Annes e stated	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/95) cessed the same way as th osed of to drains. See para <b>waste management:</b> a II of Regulation (EC) No 1	a acute toxic g a acute toxic g be assessmen 5/EC) of the c ne actual proc agraph 6.2. 1907/2006 (R	t and disposal operati code and in case the o luct. Otherwise, it wil REACH) the communit	ons in accorc container has l be processe y or state pro	dance with Annex 1 and been in direct contact v ad as non-dangerous resi	with sidue.
	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no <b>Regulations re</b> In accordance w management are	IP3 Flam ment (c prized wa 3/98/EC). ill be pro t be disp lated to ith Annes e stated	mable, HP12 Release of an lisposal and evaluation) aste service manager on th As under 15 01 (2014/95) cessed the same way as th osed of to drains. See para waste management:	a acute toxic g a acute toxic g be assessmen 5/EC) of the c ne actual proc agraph 6.2. 1907/2006 (R	t and disposal operati code and in case the o luct. Otherwise, it wil REACH) the communit	ons in accorc container has l be processe y or state pro	dance with Annex 1 and been in direct contact v ad as non-dangerous resi	with sidue.
ECT	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no <b>Regulations re</b> In accordance w management are Community legis	IP3 Flam ment (c orized wa 3/98/EC). Il be pro t be disp lated to th Annex stated lation: D	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/95) cessed the same way as th osed of to drains. See para <b>waste management:</b> a II of Regulation (EC) No 1	a acute toxic g a acute toxic g be assessmen 5/EC) of the c ne actual proc agraph 6.2. 1907/2006 (R	t and disposal operati code and in case the o luct. Otherwise, it wil REACH) the communit	ons in accorc container has l be processe y or state pro	dance with Annex 1 and been in direct contact v ad as non-dangerous resi	with sidue.
ECT	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no Regulations re In accordance w management are Community legis	IP3 Flam ment (c orized wa 3/98/EC). Ill be pro t be disp lated to th Annes stated lation: D SPORT 1 langero	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/955 cessed the same way as th osed of to drains. See para <b>waste management:</b> If I of Regulation (EC) No rective 2008/98/EC, 2014/	a acute toxic g a acute toxic g be assessmen 5/EC) of the c ne actual proc agraph 6.2. 1907/2006 (R	t and disposal operati code and in case the o luct. Otherwise, it wil REACH) the communit	ons in accorc container has l be processe y or state pro	dance with Annex 1 and been in direct contact v ad as non-dangerous resi	with sidue.
ECT	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no Regulations re In accordance w management are Community legis	IP3 Flam ment (c orized wa g/98/EC). ill be pro t be disp lated to th Anne: e stated lation: D SPORT 1 langero ADR 202	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/95) cessed the same way as th osed of to drains. See para <b>waste management:</b> at II of Regulation (EC) No rective 2008/98/EC, 2014/ <b>NFORMATION</b> ** <b>us goods by land:</b>	a acute toxic g a acute toxic g e assessmen 5/EC) of the c e actual proc graph 6.2. 1907/2006 (R 955/EU, Regu	t and disposal operati code and in case the o duct. Otherwise, it wil REACH) the communit ulation (EU) No 1357/	ons in accorc container has l be processe y or state pro	dance with Annex 1 and been in direct contact v ad as non-dangerous resi	with sidue.
ECT	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no Regulations re In accordance w management are Community legis	IP3 Flam ment (c orized wa b/98/EC). ill be pro t be disp lated to th Annex stated lation: D BPORT 1 BADGR 202 14.1 14.2	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/95) cessed the same way as th osed of to drains. See para <b>waste management:</b> a II of Regulation (EC) No : rective 2008/98/EC, 2014/ <b>INFORMATION **</b> <b>US goods by land:</b> :3 and RID 2023: <b>UN number or ID number</b> <b>UN proper shipping na</b>	a acute toxic g a acute toxic g be assessmen 5/EC) of the c agraph 6.2. 1907/2006 (R 955/EU, Regu ber: UN2 me: FLAN	t and disposal operati code and in case the o duct. Otherwise, it wil REACH) the communit ulation (EU) No 1357/	ons in accorc container has l be processe y or state pro 2014	dance with Annex 1 and been in direct contact v d as non-dangerous resi povisions related to waste	with sidue.
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ECT	Waste manage Consult the auth 2 (Directive 2008 the product, it w Waste should no Regulations re In accordance w management are Community legis	IP3 Flam ment (c orized wa 3/98/EC). ill be pro t be disp lated to th Annex stated lation: D SPORT J langero ADR 202 14.1 14.2 14.3	mable, HP12 Release of an <b>lisposal and evaluation</b> ) aste service manager on th As under 15 01 (2014/95! cessed the same way as th bosed of to drains. See para <b>waste management:</b> a II of Regulation (EC) No 12 rective 2008/98/EC, 2014/ <b>INFORMATION **</b> <b>us goods by land:</b> 13 and RID 2023: <b>UN number or ID numl</b> <b>UN proper shipping na Transport hazard class</b> Labels:	ber: UN2 me: FLAN s(es): 3 3, 8	t and disposal operati code and in case the o duct. Otherwise, it wil REACH) the communit ulation (EU) No 1357/	ons in accorc container has l be processe y or state pro 2014	dance with Annex 1 and been in direct contact v d as non-dangerous resi povisions related to waste	with sidue.
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Date of compilation: 13/07/2023	Revised: 12/03/2024	Version: 4 (Replaced 3)
SECTION 14: TRANSPOR	T INFORMATION ** (continued	()
With regard to IMDG	40-20:	
	.1 UN number or ID number: .2 UN proper shipping name:	UN2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol)
	.3 Transport hazard class(es): Labels:	3 3, 8
14	.4 Packing group:	III
	.5 Marine pollutant:	No
14	.6 Special precautions for user	
	Special regulations:	274, 223
	EmS Codes:	F-E, S-C
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
14	.7 Maritime transport in bulk according to IMO instruments:	Non-applicable
Transport of dange		
With regard to IATA/	ICAO 2023:	
<b>1</b> 4	.1 UN number or ID number:	UN2924
14	.2 UN proper shipping name:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol)
14	.3 Transport hazard class(es):	3
	Labels:	3, 8
	.4 Packing group:	III
	.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
** Changes with regards to the u	previous version	

\*\* Changes with regards to the previous version

# 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: 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:

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:

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e of o	compilation: 13/07/2023 Revised: 12/03/2024 Version: 4 (Replaced 3)
SECT	TION 15: REGULATORY INFORMATION (continued)
	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.
SECT	TION 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 shee 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
	Guanidinium thiocyanate (593-84-0) · Removed substances Dangerous substance 105
	Substances that contribute to the classification (SECTION 2): · New declared substances
	Guanidinium thiocyanate (593-84-0) · Removed substances Dangerous substance 105
	CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): · Hazard statements · Supplementary information
	TRANSPORT INFORMATION (SECTION 14): • UN number
	<ul> <li>Packing group</li> <li>Texts of the legislative phrases mentioned in section 2:</li> </ul>
	H314: Causes severe skin burns and eye damage.
	H318: Causes serious eye damage. H412: Harmful to aquatic life with long lasting effects. H302: Harmful if swallowed.
	H226: Flammable liquid and vapour.
	<b>Texts of the legislative phrases mentioned in section 3:</b> 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+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled. Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects. Eye Dam. 1: H318 - Causes serious eye damage.
	Flam. Liq. 2: H225 - Highly flammable liquid and vapour. Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
	Classification procedure: Skin Corr. 1C: Calculation method
	Eye Dam. 1: Calculation method Aquatic Chronic 3: Calculation method Acute Tox. 4: Calculation method
	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. <b>Principal bibliographical sources:</b>
	Principal bibliographical sources:

\*\* Changes with regards to the previous version

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SECTION 16: OTHER INFORM	ATION ** (continued)	
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 maritim		
IATA: International Air Trans	sport Association	
ICAO: International Civil Avi	5	
COD: Chemical Oxygen Den		
BOD5: 5day biochemical oxy		
BCF: Bioconcentration factor	-	
LD50: Lethal Dose 50		
LC50: Lethal Concentration		
EC50: Effective concentration		
LogPOW: Octanolwater part Koc: Partition coefficient of		
UFI: unique formula identifi		
IARC: International Agency		

\*\* 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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	MD+39 - Duller NFF				
te of	compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2)				
SECT	TION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING				
1.1	Product identifier: MB459 - Buffer NPP				
	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	<b>Emergency telephone number:</b> National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.				
0-0-					
	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	Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412 Eye Irrit. 2: Eye irritation, Category 2, H319 Skin Irrit. 2: Skin irritation, Category 2, H315 Label elements:				
	CLP Regulation (EC) No 1272/2008:				
	Labelling of packages where the contents do not exceed 125 ml:				
	Warning				
	Hazard statements:				
	Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.				
	Precautionary statements:				
	Non-applicable				
	UFI: P770-U0S3-W00F-DT95				
2.3	Other hazards:				
	Product does not meet PBT/vPvB criteria Endocrine-disrupting properties: The product does not meet the criteria.				
SECT	TION 3: COMPOSITION/INFORMATION ON INGREDIENTS **				
3.1	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:

\*\* Changes with regards to the previous version

Safety data sheet legislation

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e of compilation: 13/07/2023	Revised: 12/03	3/2024 Version:	3 (Replaced 2)		
ECTION 3: COMPOSITION	N/INFORMATION	ON INGREDIENTS *	* (continued)		
Identification		Chemical n	ame/Classification		Concentration
CAS: 7646-85-7	zinc chloride <sup>(1)</sup>			ATP CLP00	
EC: 231-592-0 Index: 030-003-00-2 REACH: 01-2119472431-44- XXXX		Acute Tox. 4: H302; Aquatic Acu 1B: H314 - Danger	ıte 1: H400; Aquatic Chronic 1: H410; Skin Corr.		1 - <2,5 %
<sup>(1)</sup> Substances presenting a health To obtain more informat			egulation (EU) No. 2020/878 t sections 11, 12 and 16.		
Other information:					
	Identification		Specific concentration	n limit	
zinc chloride CAS: 7646-85-7 EC: 231-592-0			% (w/w) >=5: STOT SE 3 - H335		
Changes with regards to the pre	evious 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 indestion/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.

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

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

#### **Extinguishing media:** 5.1

#### 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

#### Special hazards arising from the substance or mixture: 5.2

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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. 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:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

#### 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 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

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on 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

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

#### 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	kposure
Identification		Systemic	Local	Systemic	Local
zinc chloride	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 7646-85-7	Dermal	Non-applicable	Non-applicable	8,3 mg/kg	Non-applicable
EC: 231-592-0	Inhalation	Non-applicable	Non-applicable	1 mg/m <sup>3</sup>	Non-applicable

## DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
zinc chloride	Oral	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
CAS: 7646-85-7	Dermal	Non-applicable	Non-applicable	8,3 mg/kg	Non-applicable
EC: 231-592-0	Inhalation	Non-applicable	Non-applicable	1,25 mg/m <sup>3</sup>	Non-applicable

#### PNEC:

Identification				
zinc chloride	STP	0,1 mg/L	Fresh water	0,0206 mg/L
CAS: 7646-85-7	Soil	35,6 mg/kg	Marine water	0,0061 mg/L
EC: 231-592-0	Intermittent	Non-applicable	Sediment (Fresh water)	117,8 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	56,5 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: Nitrile, Breakthrough time: > 480 min, Thickness: 0.11 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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	compilation: 13/07/202	3 Revised: 12/	03/2024	Version: 3 (Replaced 2)				
SECT	TON 8: EXPOSURE	CONTROLS/PERSO	NAL PROTECT	ION (continued)				
	Pictogram	PPE	Labelling	CEN Standard		Remarks		
	Mandatory face protection	Panoramic glasses agains splash/projections.	CAT II	EN 166:2002 EN ISO 4007:2018		daily and disinfect periodically according to anufacturer´s instructions. Use if there is a risk of splashing.		
	E Body protection							
	Pictogram	PPE	Labelling	CEN Standard		Remarks		
		Work clothing	CATI		perioo recom	ce before any evidence of deterioration. For Is of prolonged exposure to the product for professional/industrial users CE III is mended, in accordance with the regulations ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.		
		Anti-slip work shoes	CAT II	EN ISO 20347:2012	period recom	ce before any evidence of deterioration. For Is of prolonged exposure to the product for professional/industrial users CE III is mended, in accordance with the regulations EN ISO 20345:2012 y EN 13832-1:2007		
	F Additional emerge	ency measures						
	Emergency mea	isure	Standards	Emergency measu	ire	Standards		
	Emergency sho	ISO 3864-1:	NSI Z358-1 2011, ISO 3864-4:20	011 Eyewash station	5	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011		
	V.O.C. (Supply): V.O.C. density at Average carbon n	0 % 20 °C: 0 k umber: Nor	6 weight g/m³ (0 g/L) n-applicable	llowing characteristics:				
		AND CHEMICAL PRO						
9.1	Information on basic physical and chemical properties:							
	For complete information see the product datasheet.							
	•	tion see the product da	atasheet.					
	Appearance:			id				
	Appearance: Physical state at 20 %		Liqu					
	<b>Appearance:</b> Physical state at 20 ° Appearance:		Liqu Not	available				
	Appearance: Physical state at 20 % Appearance: Colour:		Liqu Not Colc	available purless				
	Appearance: Physical state at 20 % Appearance: Colour: Odour:		Liqu Not Colc Odo	available purless purless				
	Appearance: Physical state at 20 % Appearance: Colour: Odour: Odour threshold:		Liqu Not Colc Odo	available purless				
	Appearance: Physical state at 20 % Appearance: Colour: Odour: Odour threshold: Volatility:	C:	Liqu Not Colc Odo Non	available purless purless -applicable *				
	Appearance: Physical state at 20 % Appearance: Colour: Odour: Odour threshold: Volatility: Boiling point at atmos	C: spheric pressure:	Liqu Not Colo Odo Non 100	available ourless ourless -applicable * °C				
	Appearance: Physical state at 20 % Appearance: Colour: Odour: Odour threshold: Volatility: Boiling point at atmos Vapour pressure at 20	C: spheric pressure: 0 °C:	Liqu Not Odo Non 100 235	available ourless ourless -applicable * °C 0 Pa				
	Appearance: Physical state at 20 % Appearance: Colour: Odour: Odour threshold: Volatility: Boiling point at atmos	C: spheric pressure: 0 °C: 0 °C:	Liqu Not Odo Non 100 235 123	available ourless ourless -applicable * °C				

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Date of	compilation: 13/07/2023 Re	vised: 12/03/2024	Version: 3 (Replaced 2)	
SECT	FION 9: PHYSICAL AND CHEM	ICAL PROPERTIES	6 (continued)	
	Product description:			
	Density at 20 °C:		1045,5 kg/m³	
	Relative density at 20 °C:		1,045	
	Dynamic viscosity at 20 °C:		1,08 cP	
	Kinematic viscosity at 20 °C:		1,03 mm²/s	
	Kinematic viscosity at 40 °C:		Non-applicable *	
	Concentration:		Non-applicable *	
	pH:		3,5 - 4,5	
	Vapour density at 20 °C:		Non-applicable *	
	Partition coefficient n-octanol/wat	er 20 ºC:	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:		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 ph	ysical hazard clas	ses:	
	Explosive properties:		Non-applicable *	
	Oxidising properties:		Non-applicable *	
	Corrosive to metals:		Non-applicable *	
	Heat of combustion:		Non-applicable *	
	Aerosols-total percentage (by mas components:	s) of flammable	Non-applicable *	
	Other safety characteristics:		Non annliashla *	
	Surface tension at 20 °C:		Non-applicable *	
	Refraction index: *Not relevant due to the nature of the pro-		Non-applicable *	

# 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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ECI	TON 10: STABILITY AND	REACTIVITY (CONTI	nued)											
	Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity									
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable									
0.5	Acids         Water         Oxidising materials         Combustible materials         Others													
	Avoid strong acids	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases									
0.6	Hazardous decompositio	•												
	See subsection 10.3, 10.4 a complex mixtures of chemic													
ECT	TON 11: TOXICOLOGICA	AL INFORMATION **	k											
1.1	Information on hazard o	lasses as defined in I	Regulation (EC) No 1272	2/2008:										
	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 th	an the recommended oc	cupational exposure limits									
	adverse effects on health m	nay result, depending or												
	A- Ingestion (acute effect)	:												
			classification criteria are not	met, however, it contain	ns substances classified as									
	dangerous for consumpt			se irritation in the throat	abdominal nain nausea									
	- 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 skir	- Contact with the skin: Produces skin inflammation.												
		- Contact with the eyes: Produces eye damage after contact.												
	D- CMR effects (carcinoger	D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):												
			e classification criteria are no		ntain substances classified									
	as hazardous for the eff IARC: Non-applicable		pre information see section 3	3.										
			lassification criteria are not	met, as it does not conta	ain substances classified a									
	hazardous for this effect	t. For more information	see section 3.											
			ta, the classification criteria information see section 3.	are not met, as it does i	not contain substances									
	E- Sensitizing effects:													
	- Respiratory: Based o	n available data, the cla	ssification criteria are not m	net, as it does not contai	n substances classified as									
	hazardous with sensitisi	ng effects. For more inf	ormation see section 3.											
	<ul> <li>Skin: Based on availa hazardous for this effect</li> </ul>	-	ion criteria are not met, as i	it does not contain subst	ances classified as									
	F- Specific target organ toxicity (STOT) - single exposure:													
				ot contain substances -	Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for									
		, the classification criter		ot contain substances cla	assified as hazardous for									
	Based on available data	, the classification criter ormation see section 3.	ia are not met, as it does no	ot contain substances cla	assified as hazardous for									
	Based on available data this effect. For more info G- Specific target organ to:	, the classification criter ormation see section 3. xicity (STOT)-repeated e	ia are not met, as it does no exposure:											
	<ul> <li>Based on available data, this effect. For more info</li> <li>G- Specific target organ too</li> <li>Specific target organ it does not contain subs</li> </ul>	, the classification criter ormation see section 3. xicity (STOT)-repeated of toxicity (STOT)-repeated stances classified as haz	ia are not met, as it does no	able data, the classificat ore information see sect	ion criteria are not met, as cion 3.									

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	TON 11: TOXICOLOGICAL INFORM	IATION ** (continu	led)					
	H- Aspiration hazard:							
Based on available data, the classification criteria are not met, as it does not contain substances classified as ha								
	this effect. For more information see section 3.							
	Other information:							
	Non-applicable							
	Specific toxicology information on the substances:							
	Identification			Acute toxicity Genus				
	zinc chloride			LD50 oral	Acu	528 mg/kg	Rat	
	CAS: 7646-85-7			LD50 derma	al	>2000 mg/kg		
	EC: 231-592-0			LC50 inhala	tion	>5 mg/L		
	Acute Toxicity Estimate (ATE mix):							
		ATE mix				Ingredient(s) of unknow	wn toxicity	
	Oral 264	100 mg/kg (Calculation met	thod)		0 %			
	Dermal >2	000 mg/kg (Calculation me	thod)		Non-ap	oplicable		
		0 mg/L (4 h) (Calculation n	nethod)		Non-ap	oplicable		
1.2	Information on other hazards:							
ECT	ges with regards to the previous version TON 12: ECOLOGICAL INFORMATI Apperimental information related to the economic states and the economic states		ties of the pro	oduct itself	is not a	vailable		
ECT he ex armf	ION 12: ECOLOGICAL INFORMATI experimental information related to the economic of the economic structure of the second structur	o-toxicological proper	ties of the pro	oduct itself	is not a	vailable		
ECT he ex armf	TON 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity:	o-toxicological proper	ties of the pro	oduct itself	is not a	vailable		
ECT he ex armf	TON 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity:	o-toxicological proper			is not a			
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification	o-toxicological propert	Concentra	tion	is not a	Species	Genus	
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride	o-toxicological propert	Concentrai 18,18 mg/L (	tion 96 h)	is not a	Species Pimephales promelas	Fish	
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification	o-toxicological propert	Concentra	tion 96 h) 48 h)	is not a	Species		
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7	co-toxicological propert c. LC50 EC50	Concentra 18,18 mg/L ( 0,158 mg/L (	tion 96 h) 48 h)	is not a	Species Pimephales promelas	Fish	
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0	co-toxicological propert c. LC50 EC50	Concentra 18,18 mg/L ( 0,158 mg/L (	tion 96 h) 48 h) le	is not a	Species Pimephales promelas	Fish	
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0 Chronic toxicity:	co-toxicological propert c. LC50 EC50	Concentra 18,18 mg/L ( 0,158 mg/L ( Non-applicab	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna	Fish Crustacean	
ECT he ex armf	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0 Chronic toxicity: Identification	o-toxicological propert	Concentra 18,18 mg/L ( 0,158 mg/L ( Non-applicab	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species	Fish Crustacean Genus	
ECT he e) armf 2.1	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0 Chronic toxicity: Identification zinc chloride	io-toxicological propert	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he ex armf 2.1	TION 12: ECOLOGICAL INFORMATI experimental information related to the eco ful to aquatic life with long lasting effects Toxicity: Acute toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0 Chronic toxicity: Identification zinc chloride CAS: 7646-85-7 EC: 231-592-0	io-toxicological propert	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1	ION 12: ECOLOGICAL INFORMATI         experimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride         CAS: 7646-85-7         EC: 231-592-0         Chronic toxicity:         Identification         zinc chloride         CAS: 7646-85-7 EC: 231-592-0         Persistence and degradability:         Not available	io-toxicological propert	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
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ECT he ex armf 2.1 2.2 2.2	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride       CAS: 7646-85-7         CAronic toxicity:         Identification         zinc chloride       CAS: 7646-85-7         EC: 231-592-0       Chronic toxicity:         Identification         zinc chloride       CAS: 7646-85-7 EC: 231-592-0         Persistence and degradability:         Not available         Bioaccumulative potential:         Not available	io-toxicological propert	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he ex armf 2.1 2.2 2.2	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economy of the second structure of the se	io-toxicological propert	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1 2.2 2.3 2.3	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride         CAS: 7646-85-7         EC: 231-592-0         Chronic toxicity:         Identification         zinc chloride         CAS: 7646-85-7         EC: 231-592-0         Persistence and degradability:         Not available         Bioaccumulative potential:         Not available         Mobility in soil:         Not available	io-toxicological propert LC50 EC50 EC50 EC50 NOEC	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1 2.2 2.3 2.3	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economy of the second structure of the se	no-toxicological property.	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1 2.2 2.3 2.4 2.5	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride         CAS: 7646-85-7         CC: 231-592-0         Chronic toxicity:         Identification         zinc chloride         CAS: 7646-85-7 EC: 231-592-0         Persistence and degradability:         Not available         Bioaccumulative potential:         Not available         Mobility in soil:         Not available         Results of PBT and vPvB assessment         Product does not meet PBT/vPvB criterie	no-toxicological property.	Concentrai 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrai 0,172 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1 2.2 2.3 2.4 2.5	ION 12: ECOLOGICAL INFORMATI         sperimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride         CAS: 7646-85-7         EC: 231-592-0         Chronic toxicity:         Identification         zinc chloride         CAS: 7646-85-7         CE: 231-592-0         Persistence and degradability:         Not available         Bioaccumulative potential:         Not available         Mobility in soil:         Not available         Results of PBT and vPvB assessment         Product does not meet PBT/vPvB criteri         Endocrine disrupting properties:	no-toxicological propert LC50 EC50 EC50 EC50 NOEC	Concentrat 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrat 0,172 mg/L 0,031 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	
ECT he e) armf 2.1 2.2 2.2 2.3 2.4 2.5	ION 12: ECOLOGICAL INFORMATI         xperimental information related to the economic to aquatic life with long lasting effects         Toxicity:         Acute toxicity:         Identification         zinc chloride         CAS: 7646-85-7         CC: 231-592-0         Chronic toxicity:         Identification         zinc chloride         CAS: 7646-85-7 EC: 231-592-0         Persistence and degradability:         Not available         Bioaccumulative potential:         Not available         Mobility in soil:         Not available         Results of PBT and vPvB assessment         Product does not meet PBT/vPvB criterie	no-toxicological propert LC50 EC50 EC50 EC50 NOEC	Concentrat 18,18 mg/L ( 0,158 mg/L ( Non-applicab Concentrat 0,172 mg/L 0,031 mg/L	tion 96 h) 48 h) le	is not a	Species Pimephales promelas Daphnia magna Species Cottus bairdi	Fish Crustacean Genus Fish	

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Version: 3 (Replaced 2)

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

#### 12.7 Other adverse effects:

Not described

\*\* Changes with regards to the previous version

# 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):

HP14 Ecotoxic

### 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:

14.1	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	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 according to IMO instruments:	Non-applicable
Transpo	rt of dangerous goods by sea:	
With rega	rd to IMDG 40-20:	

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Date of compilation:	13/07/2023 Revised: 12/0	)3/2024	Version: 3 (Replaced 2)		
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:	Non-applicable Non-applicable Non-applicable Non-applicable Non-applicable			
	Marine pollutant:	No			
	Special precautions for user Special regulations: EmS Codes: Physico-Chemical properties: Limited quantities: Segregation group:	Non-applicable see section 9 Non-applicable Non-applicable			
14.7	Maritime transport in bulk according to IMO instruments:	Non-applicable			
Transpo	rt of dangerous goods by air:				
With rega	ard to IATA/ICAO 2023:				
14.2 14.3 14.4 14.5	UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels: Packing group: Environmental hazards: Special precautions for user	Non-applicable Non-applicable Non-applicable Non-applicable Non-applicable No			
	Physico-Chemical properties:	see section 9			
14.7	Maritime transport in bulk according to IMO instruments:	Non-applicable			
	EGULATORY INFORMATION				
Candidate	substances for authorisation unde	r the Regulation	tion specific for the substance or mixture: n (EC) No 1907/2006 (REACH): Non-applicable List") and sunset date: Non-applicable		

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

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

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

## Seveso III:

Non-applicable

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

Shall not be used in:

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

-tricks and jokes,

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

Specific provisions in terms of protecting people or the environment:

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

# Other legislation:

The product could be affected by sectorial legislation

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### legislation

### MB459 - Buffer NPP

Date of compilation: 13/07/2023 Revised: 12/03/2024 Version: 3 (Replaced 2) SECTION 15: REGULATORY INFORMATION (continued) 15.2 Chemical safety assessment: The supplier has not carried out evaluation of chemical safety. SECTION 16: OTHER INFORMATION Legislation related to safety data sheets: The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (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 zinc chloride (7646-85-7) · Removed substances Dangerous substance 106 Texts of the legislative phrases mentioned in section 2: H315: Causes skin irritation. H412: Harmful to aquatic life with long lasting effects. 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: Acute Tox. 4: H302 - Harmful if swallowed. Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects. Skin Corr. 1B: H314 - Causes severe skin burns and eye damage. **Classification procedure:** Skin Irrit. 2: Calculation method Aquatic Chronic 3: Calculation method 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: 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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## Interstation MB459 - Reducing Agent TCEP

Date of	compilation: 13/07/2023 Rev	ised: 13/03/2024	Version: 4 (Replaced 3)		
SECT	SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING				
1.1	Product identifier:	MB459 - Reduc	ing Agent TCEP		
	Other means of identification:				
	Non-applicable				
1.2	Relevant identified uses of the	substance or mixtu	ire and uses advised against:		
	Relevant uses: Laboratory. For pro	essional users only.			
	Uses advised against: All uses not	pecified in this sectio	n or in section 7.3		
1.3	Details of the supplier of the sa	fety data sheet:			
	NZYtech, Lda Estrada do Paco do Lumiar Campus 1649-038 Lisboa - Lisboa - Portuga Phone: +351 213643514 info@nzytech.com www.nzytech.com	,	-/c		
1.4	Emergency telephone number:		ter (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your ormation 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.

Eye Irrit. 2: Eye irritation, Category 2, H319 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: XA70-C0FH-600Y-24V7

#### 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

### 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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## MB459 - Reducing Agent TCEP

Date of compilation: 13/07/2023	Revised: 13/03/2024	Version: 4 (Replaced 3)				
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)						
Identification		Chemical name/Classification		Concentration		
CAS: 51805-45-9	3,3´,3´´-Phosphinetriyltriprop	anoic acid <sup>(1)</sup>	Self-classified			
EC: 629-759-1 Index: Non-applicable REACH: Non-applicable	Regulation 1272/2008 Eye Irrit. 2:	H319; Skin Irrit. 2: H315 - Warning	¢	70 - <100 %		
	<sup>(1)</sup> 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.					

### 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.

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

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:

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## MB459 - Reducing Agent TCEP

Date of	compilation: 13/07/2023 Revised: 13/03/2024 Version: 4 (Replaced 3)			
SEC	TION 5: FIREFIGHTING MEASURES (continued)			
	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.			
SEC	TION 6: ACCIDENTAL RELEASE MEASURES			
6.1	6.1 Personal precautions, protective equipment and emergency procedures:			
	For non-emergency personnel:			
	Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal			
	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:			
	Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal			
6.4	Reference to other sections:			
	See sections 8 and 13.			
SEC	TION 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 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):

Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3

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## legislation MB459 - Reducing Agent TCEP

	DNEL (Workers):							
	Non-applicable							
	DNEL (General pop	pulation):						
	Non-applicable							
	PNEC:							
2	Non-applicable Exposure controls:							
~	-	ion measures, such as pe	ersonal protectiv	ve equipment				
	marking>> in acc use, cleaning, ma information see su	cordance with Regulation intenance, class of protect ubsection 7.1. All information evention services as it is	(EU) 2016/425 ction,) consult ation contained	. For more information t the information leaflet herein is a recommend	uipment, with the corresponding < <ce on Personal Protective Equipment (storage, provided by the manufacturer. For more ation which needs some specification from dditional measures at its disposal.</ce 			
	. ,.		acessary if a mi	st forms or if the occurs	ational exposure limits are exceeded.			
	C Specific protection							
		PPE	Laballina	CEN Standard	Remarks			
	Pictogram	PPE	Labelling					
	Mandatory hand protection	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend usin CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018			
	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	Panoramic glasses against splash/projections.		EN 166:2002 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			
		Work clothing	CATI		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.			
		Anti-slip work shoes	CE	EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations			

#### **Environmental exposure controls:**

Emergency shower

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:

Eyewash stations

- CONTINUED ON NEXT PAGE -

ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011

DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

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## MB459 - Reducing Agent TCEP

Date of	compilation: 13/07/2023 Revised	13/03/2024	Version: 4 (Replaced 3)
SEC	TION 8: EXPOSURE CONTROLS/PE	RSONAL PROTEC	TION (continued)
	With regard to Directive 2010/75/EU, the V.O.C. (Supply): V.O.C. density at 20 °C: Average carbon number: Average molecular weight:	is product has the f 0 % weight 0 kg/m <sup>3</sup> (0 g/L) Non-applicable Non-applicable	following characteristics:
SEC	TION 9: PHYSICAL AND CHEMICAL	PROPERTIES	
9.1	Information on basic physical and For complete information see the produ Appearance:		ies:
	Physical state at 20 °C:	So	lid
	Appearance:	No	ot available
	Colour:	Co	lourless
	Odour:		rsistent
	Odour threshold:	No	on-applicable *
	Volatility:		
	Boiling point at atmospheric pressure:		on-applicable *
	Vapour pressure at 20 °C:		on-applicable *
	Vapour pressure at 50 °C: Evaporation rate at 20 °C:		on-applicable * on-applicable *
	Product description:	INC	
	Density at 20 °C:	10	38,7 kg/m³
	Relative density at 20 °C:		039
	Dynamic viscosity at 20 °C:	-	on-applicable *
	Kinematic viscosity at 20 °C:		on-applicable *
	Kinematic viscosity at 40 °C:		n-applicable *
	Concentration:	No	on-applicable *
	pH:	6,5	5 - 7
	Vapour density at 20 °C:	No	on-applicable *
	Partition coefficient n-octanol/water 20	°C: No	on-applicable *
	Solubility in water at 20 °C:	No	on-applicable *
	Solubility properties:	Nc	on-applicable *
	Decomposition temperature:		on-applicable *
	Melting point/freezing point:	No	on-applicable *
	Flammability:		
	Flash Point:		on-applicable
	Flammability (solid, gas):		on-applicable *
	Autoignition temperature: Lower flammability limit:		on-applicable * on-applicable *
	Upper flammability limit:		on-applicable *
	Explosive (Solid):	NC	
	Lower explosive limit:	No	on-applicable *
	Upper explosive limit:		on-applicable *
	*Not relevant due to the nature of the product,		

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#### legislation

## MB459 - Reducing Agent TCEP

	Particle characteristics:								
	Median equivalent diameter:	Non-applicable *							
.2	Other information:								
	Information with regard to physical hazard cla	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: 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		-						
.0.1	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet. Chemical stability:	oduct is stable under reco		ions. See section 7 from					
LO.1	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet.	oduct is stable under reco torage, handling and use.	mmended storage condit						
.0.1 .0.2 .0.3	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet. Chemical stability: Chemically stable under the indicated conditions of st Possibility of hazardous reactions:	oduct is stable under reco torage, handling and use.	mmended storage condit						
.0.1 .0.2 .0.3	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet. Chemical stability: Chemically stable under the indicated conditions of st Possibility of hazardous reactions: Under the specified conditions, hazardous reactions t	oduct is stable under reco torage, handling and use. hat lead to excessive tem	mmended storage condit						
.0.1 .0.2 .0.3	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet. Chemical stability: Chemically stable under the indicated conditions of st Possibility of hazardous reactions: Under the specified conditions, hazardous reactions to Conditions to avoid:	oduct is stable under reco torage, handling and use. hat lead to excessive tem	mmended storage condit						
.0.1 .0.2 .0.3	TION 10: STABILITY AND REACTIVITY Reactivity: No hazardous reactions are expected because the pro Safety Data Sheet. Chemical stability: Chemically stable under the indicated conditions of st Possibility of hazardous reactions: Under the specified conditions, hazardous reactions t Conditions to avoid: Applicable for handling and storage at room tempera	oduct is stable under reco torage, handling and use. hat lead to excessive tem ture:	mmended storage condit peratures or pressure are	e not expected.					
0.1 0.2 0.3 0.4	FION 10: STABILITY AND REACTIVITY         Reactivity:         No hazardous reactions are expected because the prosafety Data Sheet.         Chemical stability:         Chemical stability:         Chemically stable under the indicated conditions of st         Possibility of hazardous reactions:         Under the specified conditions, hazardous reactions to         Conditions to avoid:         Applicable for handling and storage at room tempera         Shock and friction	oduct is stable under reco torage, handling and use. hat lead to excessive tem ture:	mmended storage condit peratures or pressure are Sunlight	e not expected.					
0.1 0.2 0.3 0.4	TION 10: STABILITY AND REACTIVITY         Reactivity:         No hazardous reactions are expected because the prosafety Data Sheet.         Chemical stability:         Chemical stability:         Chemical stability:         Chemically stable under the indicated conditions of st         Possibility of hazardous reactions:         Under the specified conditions, hazardous reactions to         Conditions to avoid:         Applicable for handling and storage at room tempera         Shock and friction       Contact with air         Not applicable       Not applicable         Incompatible materials:         Acids       Water	oduct is stable under reconstruction torage, handling and use. hat lead to excessive tem ture: Increase in temperature Not applicable Oxidising materials	mmended storage condit peratures or pressure are Sunlight Not applicable Combustible materials	e not expected. Humidity Not applicable Others					
.0.1 .0.2 .0.3 .0.4	TION 10: STABILITY AND REACTIVITY         Reactivity:         No hazardous reactions are expected because the prosafety Data Sheet.         Chemical stability:         Chemical stability:         Chemically stable under the indicated conditions of st         Possibility of hazardous reactions:         Under the specified conditions, hazardous reactions to         Conditions to avoid:         Applicable for handling and storage at room tempera         Shock and friction         Contact with air         Not applicable         Not applicable         Acids         Water         Avoid strong acids	oduct is stable under reco torage, handling and use. hat lead to excessive tem ture: Increase in temperature Not applicable	mmended storage condit peratures or pressure are Sunlight Not applicable	e not expected. Humidity Not applicable					
0.1 0.2 0.3 0.4	TION 10: STABILITY AND REACTIVITY         Reactivity:         No hazardous reactions are expected because the prosafety Data Sheet.         Chemical stability:         Chemical stability:         Chemical stability:         Chemically stable under the indicated conditions of st         Possibility of hazardous reactions:         Under the specified conditions, hazardous reactions to         Conditions to avoid:         Applicable for handling and storage at room tempera         Shock and friction       Contact with air         Not applicable       Not applicable         Incompatible materials:         Acids       Water	oduct is stable under reco torage, handling and use. that lead to excessive tem ture: <u>Increase in temperature</u> <u>Not applicable</u> <u>Oxidising materials</u> <u>Not applicable</u>	mmended storage condit peratures or pressure are Sunlight Not applicable Combustible materials Not applicable	e not expected. Humidity Not applicable Others Avoid alkalis or strong bases					

#### **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):

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# **NZYtech**

## MB459 - Reducing Agent TCEP

ON 11: TOXICOLOGI	CAL INFORMATION (continued	)				
<ul> <li>Acute toxicity : Ba as hazardous for inhal</li> <li>Corrosivity/Irritabili</li> <li>classified as hazardou</li> </ul>	sed on available data, the classificat lation. For more information see sec ity: Based on available data, the clas s for this effect. For more informatic and the eyes (acute effect):	ion criteria are not met, as it tion 3. ssification criteria are not met				
- Contact with the sk	kin: Produces skin inflammation. yes: Produces eye damage after con	tact.				
	enicity, mutagenicity and toxicity to					
as hazardous for the e IARC: Non-applicab - Mutagenicity: Base hazardous for this effe - Reproductive toxici	ased on available data, the classificat effects mentioned. For more informa- le d on available data, the classification ect. For more information see section ty: Based on available data, the class s for this effect. For more information	ition see section 3. n criteria are not met, as it do n 3. sification criteria are not met	oes not contain substa	nces class		
hazardous with sensit - Skin: Based on ava hazardous for this effe	on available data, the classification ising effects. For more information s ilable data, the classification criteria ect. For more information see section toxicity (STOT) - single exposure:	ee section 3. are not met, as it does not o				
this effect. For more in	ta, the classification criteria are not nformation see section 3. toxicity (STOT)-repeated exposure:	met, as it does not contain s	ubstances classified as	hazardou		
it does not contain su - Skin: Based on ava	an toxicity (STOT)-repeated exposur bstances classified as hazardous for ilable data, the classification criteria ect. For more information see section	this effect. For more informa are not met, as it does not o	tion see section 3.			
this effect. For more in	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	mation on the substances					
	ormation on the substances:					
2.2' 2'' Dhoonhingtuiutteisuur	Identification		Acute toxicity >2000 mg/kg	Ge		
3,3´,3´´-Phosphinetriyltriprop CAS: 51805-45-9	מווטוב מנוט	LD50 oral LD50 dermal	>2000 mg/kg			
EC: 629-759-1		LC50 inhalation	>5 mg/L			
			>5 mg/∟	I		
Acute Toxicity Estimat						
	ATE mix	4 B	Ingredient(s) of unkn	iown toxicity		
Oral	>2000 mg/kg (Calculation me	,	n-applicable			
Dermal Inhalation	>2000 mg/kg (Calculation me >5 mg/L (4 h) (Calculation me		n-applicable n-applicable			

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

### **Other information**

Non-applicable

## SECTION 12: ECOLOGICAL INFORMATION

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## Interstation MB459 - Reducing Agent TCEP

Date of co	Ompilation: 13/07/2023         Revised: 13/03/2024         Version: 4 (Replaced 3)					
SECTI	ON 12: ECOLOGICAL INFORMATION (continued)					
The exp	The experimental information related to the eco-toxicological properties of the product itself is not available					
For more	on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. re information see section 3. <b>Toxicity:</b>					
	Not available					
12.2	Persistence and degradability:					
	Not available					
12.3	Bioaccumulative potential:					
	Not available					
12.4	Mobility in soil:					
	Not available					
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):

HP4 Irritant — skin irritation and eye damage

#### Waste management (disposal and evaluation):

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

#### **Regulations related to waste management:**

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

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

### SECTION 14: TRANSPORT INFORMATION \*\*

#### Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

\*\* Changes with regards to the previous version

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legislation

## MB459 - Reducing Agent TCEP

Date of compilation:	13/07/2023 Revised: 13/0	)3/2024	Version: 4 (Replaced 3)
SECTION 14: T	RANSPORT INFORMATION *	* (continued)	
14.1	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		
	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	
	UN proper shipping name:	Non-applicable	
14.3	Transport hazard class(es):	Non-applicable	
	Labels:	Non-applicable	
14.4	Packing group:	Non-applicable	
	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:		
Transpo	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	Non-applicable	
	according to IMO		
	instruments:		
** Changes with reg	ards to the previous version		

\*\* Changes with regards to the previous version

## 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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## MB459 - Reducing Agent TCEP

ECT	ION 15: REGULATORY INFORMATION (continued)
	Article 95, REGULATION (EU) No 528/2012: Non-applicable
	REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable
	Seveso III:
	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
5.2	Chemical safety assessment:
	The supplier has not carried out evaluation of chemical safety.
ECT	ION 16: OTHER INFORMATION **
	Legislation related to safety data sheets:
	has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2004 (COMMISSION REGULATION (EU) 2020/878). <b>Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:</b> Substances that contribute to the classification (SECTION 2): · Removed substances 3,3',3''-Phosphinetriyltripropanoic acid (51805-45-9) CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16): · Pictograms
	<ul> <li>Hazard statements</li> <li>Precautionary statements</li> <li>TRANSPORT INFORMATION (SECTION 14):</li> <li>UN number</li> <li>Packing group</li> </ul>
	Texts of the legislative phrases mentioned in section 2:
	H315: Causes skin irritation.
	H319: Causes serious eye irritation.
	<b>Texts of the legislative phrases mentioned in section 3:</b> The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3
	CLP Regulation (EC) No 1272/2008:
	Eye Irrit. 2: H319 - Causes serious eye irritation. Skin Irrit. 2: H315 - Causes skin irritation.
	Classification procedure:
	Skin Irrit. 2: Calculation method 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. <b>Principal bibliographical sources:</b>
	http://echa.europa.eu
	http://eur-lex.europa.eu Abbreviations and acronyms:
	ADDREVIATIONS AND ACTONYMS:

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## legislation MB459 - Reducing Agent TCEP

Date of compilation: 13/07/2023 Revised: 13/03/2024		Version: 4 (Replaced 3)			
SECTION 16: OTHER INFORM	SECTION 16: OTHER INFORMATION ** (continued)				
ADR: European agreement IMDG: International maritim 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 concentration EC50: Effective concentration Koc: Partition coefficient of UFI: unique formula identifi IARC: International Agency	ne dangerous goods code sport Association iation Organisation mand ygen demand or 50 50 50 50 tition coefficient organic carbon er	carriage of dangerous goods by road			

\*\* 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.

Revised: 13/03/2024

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#### -

### MB459 - rDNAse

Date of	compilation: 13/07/20	023 Revised: 27/07/2023 Version: 2 (Replaced 1)
SEC	TION 1: IDENTIFIC	CATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1	Product identifier	: MB459 - rDNAse
		Nuclease, deoxyribo-
	CAS:	9003-98-9
	EC:	232-667-0
	Index:	Non-applicable
	REACH:	01-2120756696-38-XXXX
	Other means of id	lentification:
	Non-applicable	
1.2	Relevant identifie	ed uses of the substance or mixture and uses advised against:
	Relevant uses: Labo	pratory. For professional users only.
	Uses advised agains	st: All uses not specified in this section or in section 7.3
1.3	Details of the sup	pplier of the safety data sheet:
	NZYtech, Lda Estrada do Paco do 1649-038 Lisboa - Li Phone: +351 21364 info@nzytech.com www.nzytech.com	
1.4	Emergency teleph	hone number: National Poison Center (Portugal) CIAV: +351 800 250 250; Outside Portugal: Call your regional Poisons Information Service or call local Life Saving Service.
050		
SEC	TION 2: HAZARDS	IDENTIFICATION **
2.1	Classification of t	he substance or mixture:
	CLP Regulation (E	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

2.3

#### 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.
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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### MB459 - rDNAse

Date of compilation: 13/07/2023

Revised: 27/07/2023 Version: 2 (Replaced 1)

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substance:

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				
CAS:		luclease, deoxyribo- Self-classified				
	232-667-0 Non-applicable 01-2120756696-38- XXXX	Regulation 1272/2008	Resp. Sens. 1: H334 - Danger	100 %		

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.

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

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

#### Special hazards arising from the substance or mixture: 5.2

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:

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### MB459 - rDNAse

#### Date of compilation: 13/07/2023 Revised: 27/07/2023

Version: 2 (Replaced 1)

## SECTION 5: FIREFIGHTING MEASURES (continued)

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

#### Personal precautions, protective equipment and emergency procedures: 6.1

#### For non-emergency personnel:

Preferably use aspiration for cleaning. Given the danger of the product by inhalation, any cleaning method that involves exposure to the product in this way (sweeping, etc.) is not recommended

#### 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:

Preferably use aspiration for cleaning. Given the danger of the product by inhalation, any cleaning method that involves exposure to the product in this way (sweeping, etc.) is not recommended

#### 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 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)

#### Conditions for safe storage, including any incompatibilities: 7.2

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

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**NZYtech** MB459 - rDNAse

#### Date of compilation: 13/07/2023 Revised: 27/07/2023 Version: 2 (Replaced 1) SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued) 8.1 **Control parameters:** Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation): Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3 DNEL (Workers): Non-applicable **DNEL (General population):** Non-applicable PNEC: Identification Nuclease, deoxyribo-STP 65 mg/L Fresh water 0,00089 mg/L CAS: 9003-98-9 Soil 0,00012 mg/kg Marine water 0,000089 mg/L EC: 232-667-0 Intermittent 0,0089 mg/L Sediment (Fresh water) Non-applicable Oral Non-applicable Sediment (Marine water) Non-applicable 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 CEN Standard Pictogram PPF Labelling Remarks Replace when there is a taste or smell of the Filter mask for gases and contaminant inside the face mask. If the EN 405:2002+A1:2010 contaminant comes with warnings it is vapours CAT III Mandatory recommended to use isolation equipment. respiratory tract protection C.- Specific protection for the hands Pictogram PPE Labelling **CEN Standard** Remarks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for Protective gloves against professional users/industrials, we recommend using minor risks CE III gloves in line with standards EN ISO Mandatory hand protection CAT I 21420:2020 and EN ISO 374-1:2016+A1:2018 D.- Eye and face protection Labelling Pictogram PPE CEN Standard Remarks Clean daily and disinfect periodically according to Panoramic glasses against EN 166:2002 the manufacturer's instructions. Use if there is a splash/projections. EN ISO 4007:2018 risk of splashing.

E.- Body protection Labelling Pictogram PPE **CEN** Standard Remarks Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is Work clothing recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO **CATI** 13688:2013, EN 464:1994.

**CAT II** 

- CONTINUED ON NEXT PAGE -

Mandatory face

protection

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### MB459 - rDNAse

	pilation: 13/07/202		evised: 27/07	//2023 V	ersion: 2 (Replaced 1)		
-110	N 8: EXPOSURE	CONTROL	S/PERSON	AL PROTECTI	ON (continued)		
	Pictogram	Р	PE	Labelling	CEN Standard		Remarks
		Anti-slip v	vork shoes	CAT II	EN ISO 20347:2012	perio recom	ce before any evidence of deterioration. F ds of prolonged exposure to the product f professional/industrial users CE III is imended, in accordance with the regulatic EN ISO 20345:2012 y EN 13832-1:2007
F	- Additional emerge	ncy measur	es				
	Emergency mea	sure	S	tandards	Emergency me	asure	Standards
	Emergency sho	wer		SI Z358-1 111, ISO 3864-4:201	1 Eyewash stat	ions	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Er	nvironmental exp	osure cont	rols:				
sp Vc	illage of both the p platile organic cou	roduct and i mpounds:	ts container.	For additional in	formation see subsect		nmended to avoid environmental
VVI	V.O.C. (Supply):	ve 2010/75/		duct has the folio weight	owing characteristics:		
	V.O.C. (Supply): V.O.C. density at 2			/m <sup>3</sup> (0 g/L)			
	Average carbon n		-	applicable			
	Average molecular			applicable			
Ap	or complete information ppearance:						
Ph	nysical state at 20 of	C:		Solid			
Ap	opearance:			Not a	vailable		
Co	blour:			White	:		
	dour:			Odou			
	dour threshold:			Non-a	applicable *		
VC	-	/olatility:					
	Boiling point at atmospheric pressure:			Non -	nnlicable *		
Во			sure:		applicable *		
Bo Va	apour pressure at 20	) °C:	sure:	Non-a	applicable *		
Bo Va Va		) °C: ) °C:	sure:	Non-a Non-a			
Bo Va Va Ev	apour pressure at 20 apour pressure at 50	) °C: ) °C: ) °C:	sure:	Non-a Non-a	applicable * applicable *		
Bo Va Va Ev <b>Pr</b>	apour pressure at 20 apour pressure at 50 vaporation rate at 20	) °C: ) °C: ) °C:	sure:	Non-a Non-a Non-a	applicable * applicable *		
Bo Va Va Ev <b>Pr</b> De	apour pressure at 20 apour pressure at 50 vaporation rate at 20 roduct description	) °C: ) °C: ) °C: <b>)</b> °C:	sure:	Non-a Non-a Non-a	applicable * applicable * applicable *		
Bo Va Va Ev <b>Pr</b> De	apour pressure at 20 apour pressure at 50 vaporation rate at 20 roduct description ensity at 20 °C:	) °C: ) °C: ) °C: <b>1:</b> °C:	sure:	Non-a Non-a Non-a 1370 1,37	applicable * applicable * applicable *		
Bo Va Va Ev <b>Pr</b> Re Dy	apour pressure at 20 apour pressure at 50 aporation rate at 20 <b>roduct description</b> ensity at 20 °C: elative density at 20	) °C: ) °C: ) °C: <b>1:</b> °C: 20 °C:	sure:	Non-a Non-a Non-a 1370 1,37 Non-a	applicable * applicable * applicable * kg/m <sup>3</sup>		
Bo Va Ev De Re Dy Kir	apour pressure at 20 apour pressure at 50 aporation rate at 20 <b>roduct description</b> ensity at 20 °C: elative density at 20 ynamic viscosity at 20 nematic viscosity at nematic viscosity at	) °C: ) °C: ) °C: <b>1:</b> °C: 20 °C: 20 °C:	sure:	Non-a Non-a 1370 1,37 Non-a Non-a Non-a	applicable * applicable * applicable * kg/m <sup>3</sup> applicable * applicable * applicable *		
Bo Va Ev Pr De Re Dy Kir Kir Co	apour pressure at 20 apour pressure at 50 raporation rate at 20 roduct description ensity at 20 °C: elative density at 20 ynamic viscosity at 20 nematic viscosity at 20 nematic viscosity at nematic viscosity at poncentration:	) °C: ) °C: ) °C: <b>1:</b> °C: 20 °C: 20 °C:	sure:	Non-a Non-a 1370 1,37 Non-a Non-a Non-a Non-a	applicable * applicable * applicable * kg/m <sup>3</sup> applicable * applicable * applicable * applicable *		
Bo Va Ev Pr De Re Dy Kir Kir Co	apour pressure at 20 apour pressure at 50 vaporation rate at 20 <b>roduct description</b> ensity at 20 °C: elative density at 20 ynamic viscosity at 20 nematic viscosity at nematic viscosity at nematic viscosity at oncentration:	) °C: ) °C: ) °C: <b>1:</b> 20 °C: 20 °C: 20 °C: 40 °C:	sure:	Non-a Non-a 1370 1,37 Non-a Non-a Non-a Non-a Non-a	applicable * applicable * applicable * kg/m <sup>3</sup> applicable * applicable * applicable * applicable * applicable *		
Bo Va Ev Pr De Re Dy Kir Kir Co PH Va	apour pressure at 20 apour pressure at 50 raporation rate at 20 roduct description ensity at 20 °C: elative density at 20 ynamic viscosity at 20 nematic viscosity at 20 nematic viscosity at nematic viscosity at poncentration:	0 °C: 0 °C: 1 °C: 20 °C: 20 °C: 40 °C: 40 °C:		Non-a Non-a 1370 1,37 Non-a Non-a Non-a Non-a Non-a	applicable * applicable * applicable * kg/m <sup>3</sup> applicable * applicable * applicable * applicable *		

- CONTINUED ON NEXT PAGE -

Revised: 27/07/2023

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## MB459 - rDNAse

Date of	compilation: 13/07/2023 Revised: 27/07/2023	Version: 2 (Replaced 1)
SECT	TION 9: PHYSICAL AND CHEMICAL PROPERTIE	S (continued)
	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-applicable
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	Non-applicable *
	Lower flammability limit:	Non-applicable *
	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 clas	ises:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components:	Non-applicable *
	Other safety characteristics:	
	Surface tension at 20 °C:	Non-applicable *
	Refraction index:	Non-applicable *
	*Not relevant due to the nature of the product, not providing info	rmation 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 ( $CO_2$ ), carbon monoxide and other organic compounds.

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### MB459 - rDNAse

Date of compilation: 13/07/2023

Revised: 27/07/2023

Version: 2 (Replaced 1)

## 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, as it does not 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: 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: Prolonged exposure can result in specific respiratory hypersensitivity.

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.

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	
Nuclease, deoxyribo-	LD50 oral	>2000 mg/kg	
CAS: 9003-98-9	LD50 dermal	>2000 mg/kg	
EC: 232-667-0	LC50 inhalation	Non-applicable	

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### MB459 - rDNAse

	ompilation: 1		Revised: 27/07/20		ersion: 2 (Replaced	d 1)			
ECT:	ION 11: TO	XICOLOGICA	L INFORMATION (	(continued)					
1.2	Informatio	n on other ha	zards:						
	Endocrine disrupting properties								
	Endocrine-di	srupting proper	ties: The product doe	s not meet th	e criteria.				
	Other infor	mation							
	Non-applicat	le							
ECT	ION 12: EC	OLOGICAL IN	FORMATION						
acod	on available (	lata the classif	ication criteria are no	t mot as it de	es not contain sul	ostances classifie	d ac bazard	ous for this effect	
		n see section 3		t met, as it ut				ous for this effect.	
2.1	Toxicity:								
	Not available	1							
2.2	Persistence	and degrada	bility:						
		specific infor	-						
		Identificat	ion	De	egradability		Biodegrada	bility	
	Nuclease, deox	yribo-		BOD5	Non-applicable	Concentration		Non-applicable	
	CAS: 9003-98-	9		COD	Non-applicable	Period		28 days	
	EC: 232-667-0			BOD5/COD	Non-applicable	% Biodegradable		95 %	
2.3	Bioaccumu	lative potenti	al:						
	Substance-	specific infor	mation:						
			Identification			E	Bioaccumulation potential		
	Nuclease, deox	yribo-				BCF			
	CAS: 9003-98-	9				Pow Log	250		
	EC: 232-667-0					Potential			
12.4	Mobility in								
	Not available								
12.5		PBT and vPvB							
	Product does	s not meet PBT/	vPvB criteria						
L2.6	Endocrine	lisrupting pro	perties:						
	Endocrine-di	srupting proper	ties: The product doe	s not meet th	e criteria.				
L2.7	Other adve	rse effects:							
	Not describe	d							
SECT	ION 13: DI	SPOSAL CON	SIDERATIONS						
13.1	Waste trea	tment method	ls:						
	Code			Description			Waste clas	s (Regulation (EU) No 1357/2014)	
		It is not possible	e to assign a specific code	e, as it depends o	on the intended use by	the user		Dangerous	
	Type of wa	ste (Regulatio	on (EU) No 1357/2	014):					
	HP13 Sensiti		(/=						
		5	posal and evaluation	).					
			-	-	ont and disease! -	norations in acces	rdancaith	Annov 1 and Area	
	2 (Directive 2	2008/98/EC). As it will be proces	e service manager on s under 15 01 (2014/ ssed the same way as ed of to drains. See p	955/EC) of the sthe actual pr	e code and in case	the container ha	as been in d	irect contact with	

Waste should not be disposed of to drains. See paragraph 6.2.

### **Regulations related to waste management:**

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### MB459 - rDNAse

Date of compilation:	13/07/2023 Revised: 27/0	07/2023 Version: 2 (Replaced 1)
SECTION 13: D	DISPOSAL CONSIDERATIONS	(continued)
manageme	ent are stated	EC) No 1907/2006 (REACH) the community or state provisions related to waste C, 2014/955/EU, Regulation (EU) No 1357/2014
SECTION 14: T	RANSPORT INFORMATION	
-	rt of dangerous goods by land ard to ADR 2023 and RID 2023:	:
14.1	UN number or ID number:	Non-applicable
	UN proper shipping name:	Non-applicable
14.3	Transport hazard class(es):	Non-applicable
14.4	Labels: Packing group:	Non-applicable Non-applicable
	Environmental hazards:	Noi-applicable
	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 according to IMO instruments:	Non-applicable
Transpo	rt of dangerous goods by sea:	
With rega	ard to IMDG 40-20:	
-	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
14.5	Marine pollutant:	No
14.6	<b>Special precautions for user</b> 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 according to IMO instruments:	Non-applicable
Transpo	rt of dangerous goods by air:	
With rega	ard to IATA/ICAO 2023:	
14.1	UN number or ID number:	Non-applicable
	UN proper shipping name:	Non-applicable
	Transport hazard class(es):	Non-applicable
	Labels:	Non-applicable
	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

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_	compilation: 13/07/2023         Revised: 27/07/2023         Version: 2 (Replaced 1)							
ECT	TON 15: REGULATORY INFORMATION							
5.1	Safety, health and environmental regulations/legislation specific for the substance or mixture:							
	Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable							
	Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable							
	Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable							
	Article 95, REGULATION (EU) No 528/2012: Non-applicable							
	REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable Seveso III:							
	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							
5.2	Chemical safety assessment:							
	The supplier has not carried out evaluation of chemical safety.							
FCT								
ECT	TON 16: OTHER INFORMATION							
ECT								
ECT	TON 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							
ECT	International Content of the state of t							
ECT	TON 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							
ECT	Image: Total Structure       Image: Total Structure         Image: Total Structu							
ECT	Instruction         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.:         Substances that contribute to the classification (SECTION 2):         • Removed substances         Nuclease, deoxyribo- (9003-98-9)							
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ECT	Image: Control of the legislative phrases mentioned in section 2:         Texts of the legislative phrases mentioned in section 3:         The phrases indicated do not refer to the product its placed in a correct of the product is placed on the market. This safety data sheets 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.:         Substances that contribute to the classification (SECTION 2):         • Removed substances         Nuclease, deoxyribo- (9003-98-9)         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							
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ECT	Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Interstructure       Image: Total and the second structure       Image: Total and the second structure         Intertstructure <td< td=""></td<>							
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Date of compilation: 13/07/2023	Revised: 27/07/2023	Version: 2 (Replaced 1)							
SECTION 16: OTHER INFORMATION (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 concentration EC50: Effective concentration LogPOW: Octanolwater par Koc: Partition coefficient of UFI: unique formula identif IARC: International Agency	me dangerous goods code asport Association viation Organisation mand cygen 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.