Safety data sheet This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

NZYtech

CZ0549 - β-Amylase 14A, *Bacillus circulans*

Date of	compilation: 23/06/2	2020 Revised: 12/10/2023 Version: 2 (Replaced 1)
SEC	TION 1: IDENTIFI	ICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1	Product identifie	er: CZ0549 - β-Amylase 14A, <i>Bacillus circulans</i>
		Glycerol
	CAS:	56-81-5
	EC:	200-289-5
	Index:	Non-applicable
	REACH:	01-2119471987-18-XXXX
	Other means of i	identification:
	Non-applicable	
1.2	Relevant identifi	ied uses of the substance or mixture and uses advised against:
	Relevant uses: Lab	boratory. For professional users only.
	Uses advised agair	nst: All uses not specified in this section or in section 7.3
1.3	Details of the su	Ipplier of the safety data sheet:
1.4	1649-038 Lisboa - info@nzytech.com www.nzytech.com	o Lumiar Campus do Lumiar - Edif. E, r/c - Lisboa - Portugal phone number: Contact Local Poison Information Center or Local Emergency Number
SEC	TION 2: HAZARDS	S IDENTIFICATION **
2.1	Classification of	the substance or mixture:
	CLP Regulation	(EC) No 1272/2008:
	Classification of th	ais product has been carried out in accordance with CLP Degulation (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 Repr. 1B: Reproductive toxicity, Category 1B, H360D 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:

Danger



Hazard statements:

Repr. 1B: H360D - May damage the unborn child.

Precautionary statements:

P201: Obtain special instructions before use.

P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.

P308+P313: IF exposed or concerned: Get medical advice/attention.

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

Substances that contribute to the classification

Imidazole (CAS: 288-32-4)

Additional Labelling:

Restricted to professional users

2.3 Other hazards:

** Changes with regards to the previous version

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Product does not meet PBT/vPvB criteria

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

Revised: 12/10/2023

** Changes with regards to the previous version

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:	288-32-4	Imidazole ⁽¹⁾		Self-classified	
EC: Index: REACH:	206-019-2 Non-applicable 01-2119485825-24- XXXX	Regulation 1272/2008	Acute Tox. 4: H302; Eye Dam. 1: H318; Repr. 1B: H360D; Skin Corr. 1C: H314 - Danger	(I) (I) (I) (I) (I) (I) (I) (I) (I) (I)	1 - <2,5 %

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

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

3.2 Mixture:

Non-applicable

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	Acu	te toxicity	Genus
Imidazole	LD50 oral	500 mg/kg (ATEi)	
CAS: 288-32-4	LD50 dermal	Non-applicable	
EC: 206-019-2	LC50 inhalation	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:

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

By skin contact:

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

By eye contact:

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

By ingestion/aspiration:

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

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

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

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

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Version: 2 (Replaced 1)

SECTION 4: FIRST AID MEASURES (continued)

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

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

Additional provisions:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

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

For emergency responders:

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

6.2 **Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

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

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks 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



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		CZ0549 - β-Α	Amylase 1	4A, <i>Bacillus</i>	circulans		
of	compilation: 23/06/2020	Revised: 12/10/202	.3 Ve	ersion: 2 (Replace	d 1)		
EC	FION 7: HANDLING AND S	STORAGE (continue	d)				
	Product is non-flammabl to avoid the generation conditions and materials C Technical recommendati	of electrostatic charge s that should be avoid	es that can a ed.	ffect flammable p			
	PREGNANT WOMEN SH necessary safety conditi equipment, especially or drink during the process D Technical recommendation	OULD NOT BE EXPOSE ons (emergency show n the hands and face (s, washing hands after	ED TO THIS vers and eyev See section 8 wards with s	PRODUCT. Trans wash stations in c). Limit manual tr	close proximity), ransfers to small	using persor	al protection
	It is recommended to ha	ve absorbent material	available at	close proximity to	the product (Se	e subsection	6.3)
.2	Conditions for safe storage	ge, including any inc	compatibilit	ies:			
	A Technical measures for s	storage					
	Store in a cool, dry, well-	-ventilated location					
	B General conditions for s						
	Avoid sources of heat, ra	5	tv and conta	ct with food. For a	additional inform	ation see sub	section 10.5
.3	Specific end use(s):	,	,				
	Except for the instructions a product.	Iready specified it is no	ot necessary	to provide any sp	ecial recommend	lation regard	ing the uses of this
8.1	Control parameters: Substances whose occupation legislation):			nitored in the wor			untry-specific
3.1	Substances whose occupation		ave to be mor	nitored in the wor			untry-specific
.1	Substances whose occupation legislation): There are no applicable occu DNEL (Workers):	upational exposure lim	ave to be mor	hitored in the wor bstances containe Short	ed in the product	Ŀ	ong exposure
.1	Substances whose occupation legislation): There are no applicable occupation DNEL (Workers): Identificat	upational exposure lim	ave to be mor its for the su	nitored in the wor ostances containe Short Systemic	ed in the product exposure Local	Li	ong exposure
.1	Substances whose occupation legislation): There are no applicable occupation DNEL (Workers): Identificat	upational exposure lim	ave to be mor its for the su Oral	nitored in the wor bstances containe Short Systemic Non-applicable	ed in the product exposure Local Non-applicable	Systemic Non-applicable	cong exposure Local Non-applicable
.1	Substances whose occupation legislation): There are no applicable occupation DNEL (Workers): Identificat	upational exposure lim	ave to be mor its for the su	nitored in the wor ostances containe Short Systemic	ed in the product exposure Local	Li	ong exposure
.1	Substances whose occupation legislation): There are no applicable occu DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2	upational exposure lim	ove to be mor its for the sul Oral Dermal	hitored in the wor bstances containe Short Systemic Non-applicable Non-applicable	ed in the product exposure Local Non-applicable Non-applicable	Systemic Non-applicable 1,5 mg/kg	cong exposure Local Non-applicable Non-applicable
3.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4	upational exposure lim	ove to be mor its for the sul Oral Dermal	hitored in the wor bstances containe Short Systemic Non-applicable Non-applicable	ed in the product exposure Local Non-applicable Non-applicable	Systemic Non-applicable 1,5 mg/kg	cong exposure Local Non-applicable Non-applicable
3.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable	upational exposure lim ion n):	ove to be mor its for the sul Oral Dermal	hitored in the wor bstances containe Short Systemic Non-applicable Non-applicable	ed in the product exposure Local Non-applicable Non-applicable	Systemic Non-applicable 1,5 mg/kg	cong exposure Local Non-applicable Non-applicable
.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable PNEC:	upational exposure lim ion n):	ove to be mor its for the sul Oral Dermal	hitored in the wor bstances containe Short Systemic Non-applicable Non-applicable Non-applicable	ed in the product exposure Local Non-applicable Non-applicable	Systemic Non-applicable 1,5 mg/kg	cong exposure Local Non-applicable Non-applicable
.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable PNEC: Identificat Imidazole CAS: 288-32-4	upational exposure lim ion n):	Oral Dermal Inhalation STP Soil	hitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable 10 mg/L 0,043 mg/kg	ed in the product exposure Local Non-applicable Non-applicable Fresh water Marine water	Non-applicable 1,5 mg/kg 10,6 mg/m ³	Image: ong exposure Local Non-applicable Non-applicable Non-applicable 0,13 mg/L
.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable PNEC: Identificat	upational exposure lim ion n):	orel to be mor its for the sul Oral Dermal Inhalation STP Soil Intermittent	hitored in the wor bostances containe Short Non-applicable Non-applicable Non-applicable 10 mg/L 0,043 mg/kg 1,3 mg/L	ed in the product exposure Local Non-applicable Non-applicable Non-applicable Fresh water Fresh water Sediment (Fresh	Non-applicable 1,5 mg/kg 10,6 mg/m ³	Local Non-applicable Non-applicable Non-applicable 0,13 mg/L 0,336 mg/kg
	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable PNEC: Identificat Imidazole CAS: 288-32-4 EC: 206-019-2	upational exposure lim ion n):	Oral Dermal Inhalation STP Soil	hitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable 10 mg/L 0,043 mg/kg	ed in the product exposure Local Non-applicable Non-applicable Fresh water Marine water	Non-applicable 1,5 mg/kg 10,6 mg/m ³	Image: ong exposure Local Non-applicable Non-applicable Non-applicable 0,13 mg/L
.1	Substances whose occupation legislation): There are no applicable occup DNEL (Workers): Identificat Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population Non-applicable PNEC: Identificat Imidazole CAS: 288-32-4	upational exposure lim ion n):	oral Oral Dermal Inhalation STP Soil Intermittent Oral	hitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable 10 mg/L 0,043 mg/kg 1,3 mg/L Non-applicable	ed in the product exposure Local Non-applicable Non-applicable Non-applicable Fresh water Fresh water Sediment (Fresh	Non-applicable 1,5 mg/kg 10,6 mg/m ³	Local Non-applicable Non-applicable Non-applicable 0,13 mg/L 0,336 mg/kg

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	ilation: 23/06/202	-	-	ersion: 2 (Replaced 1)		
IION	8: EXPOSURE	CONTROLS/PERSONA	AL PROTECTIO	N (continued)		
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory respiratory tract protection	Filter mask for gases and vapours	CATI	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				
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory hand protection	Chemical protective gloves (Material: PVC, Breakthrough time: > 480 min, Thickness: 0.7 mm)	CAT III	EN ISO 21420:2020	Repl	lace the gloves at any sign of deterioratio
D	Eye and face prot	ection				
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory face protection	Face shield		EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018		n daily and disinfect periodically according nanufacturer 's instructions. Use if there i risk of splashing.
E	Body protection					
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory complete body protection	Disposable clothing for protection against chemical risks	CATI	EN 13034:2005+A1:2009 EN 168:2002 EN ISO 13982- 1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1994		r professional use only. Clean periodically ording to the manufacturer 's instructions
	Mandatory foot protection	Safety footwear for protection against chemical risk	CAT III	EN ISO 20345:2011 EN 13832-1:2019	R	eplace boots at any sign of deterioration.
F /	Additional emerge	ency measures				
	Emergency mea	asure Si	tandards	Emergency measu	ure	Standards
	Emergency sho	ISO 3864-1:20	SI Z358-1)11, ISO 3864-4:2011	Eyewash station	IS	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Env	vironmental exp	osure controls:				
In a spill	ccordance with th	e community legislation roduct and its container				nmended to avoid environmental .D
	-	ve 2010/75/EU, this prod	fuct has the follo	wing characteristics.		
	V.O.C. (Supply):		weight			
	V.O.C. (Supply). V.O.C. density at 3		m ³ (0 g/L)			
		-				
	Average carbon n	lumher Non-	applicable			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

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

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e of c	compilation: 23/06/2020 Revised: 12/10/2023	Version: 2 (Replaced 1)
SECT	TON 9: PHYSICAL AND CHEMICAL PROPERTIES	S (continued)
	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:	
	Boiling point at atmospheric pressure:	Non-applicable *
	Vapour pressure at 20 °C:	Non-applicable *
	Vapour pressure at 50 °C:	Non-applicable *
	Evaporation rate at 20 °C:	Non-applicable *
	Product description:	
	Density at 20 °C:	1110,8 kg/m ³
	Relative density at 20 °C:	1,111
	Dynamic viscosity at 20 °C:	Non-applicable *
	Kinematic viscosity at 20 °C:	Non-applicable *
	Kinematic viscosity at 40 °C:	Non-applicable *
	Concentration:	Non-applicable *
	pH:	7,2
	Vapour density at 20 °C:	Non-applicable *
	Partition coefficient n-octanol/water 20 °C:	Non-applicable *
	Solubility in water at 20 °C:	Non-applicable *
	Solubility properties:	Non-applicable *
	Decomposition temperature:	Non-applicable *
	Melting point/freezing point:	Non-applicable *
	Flammability:	
	Flash Point:	Non Flammable (>60 °C)
	Flammability (solid, gas):	Non-applicable *
	Autoignition temperature:	480 °C
	Lower flammability limit:	Non-applicable *
	Upper flammability limit:	Non-applicable *
	Particle characteristics:	
	Median equivalent diameter:	Non-applicable
.2	Other information:	
	Information with regard to physical hazard clas	sses:
	Explosive properties:	Non-applicable *
	Oxidising properties:	Non-applicable *
	Corrosive to metals:	Non-applicable *
	Heat of combustion:	Non-applicable *
	Aerosols-total percentage (by mass) of flammable components: Other safety characteristics:	Non-applicable *
	Surface tension at 20 °C:	Non-applicable *
	*Not relevant due to the nature of the product, not providing info	

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R * SECTIC 10.1 R	DN 9: PHYSICAL AND C Refraction index: *Not relevant due to the nature of DN 10: STABILITY AND Reactivity:	the product, not providing info	Non-applicable *		
* SECTIC 10.1 R	*Not relevant due to the nature of DN 10: STABILITY AND				
SECTIC	ON 10: STABILITY AND		ormation property of its hazards.		
10.1 R		REACTIVITY			
10.1 R		REACTIVITY			
	Reactivity				
	incuctivity.				
S	No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.				
C	Chemically stable under the	indicated conditions of st	torage, handling and use.		
10.3 F	Possibility of hazardous	reactions:			
ι	Jnder the specified conditio	ns, hazardous reactions t	hat lead to excessive temp	eratures or pressure are i	not expected.
10.4 C	LO.4 Conditions to avoid:				
Д	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

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

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

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

Dangerous health implications:

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

- A- Ingestion (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
 - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Produces skin inflammation.
 - Contact with the eyes: Produces eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
 - IARC: Non-applicable
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
 - Reproductive toxicity: May damage the unborn child.



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-	ompilation: 23/06/2020	Revised: 12/10/2023	Version: 2 (Re			
ECT.	ION 11: TOXICOLOGICA	_ INFORMATION (conti	inued)			
	E- Sensitizing effects:					
	hazardous with sensitisi - Skin: Based on availa	n available data, the classif ng effects. For more inforr ble data, the classification t. For more information se icity (STOT) - single expos	mation see section 3 criteria are not met, e section 3.	3.		
	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 tox	icity (STOT)-repeated expo	osure:			
	it does not contain subs - Skin: Based on availa	toxicity (STOT)-repeated e tances classified as hazard ble data, the classification t. For more information se	lous for this effect. I criteria are not met,	For more informa	tion see section 3.	
	Based on available data, this effect. For more inf Other information:	the classification criteria a ormation see section 3.	ire not met, as it doe	s not contain sub	stances classified as ha	azardous for
	Non-applicable					
	Specific toxicology inform	nation on the substance	25:			
		Identification		Ad	cute toxicity	Genus
	Imidazole			LD50 oral	500 mg/kg (ATEi)	
	Innaazoic			LD SO OIGI	500 mg/kg (ATEI)	
	CAS: 288-32-4			LD50 dermal	>2000 mg/kg	
1.2	CAS: 288-32-4 EC: 206-019-2 Information on other ha Endocrine disrupting pro	perties	meet the criteria.			
1.2	CAS: 288-32-4 EC: 206-019-2 Information on other ha	perties	meet the criteria.	LD50 dermal	>2000 mg/kg	
.1.2	CAS: 288-32-4 EC: 206-019-2 Information on other ha Endocrine disrupting proper	perties	meet the criteria.	LD50 dermal	>2000 mg/kg	
	CAS: 288-32-4 EC: 206-019-2 Information on other ha Endocrine disrupting proper Endocrine-disrupting proper Other information Non-applicable	perties ties: The product does not	meet the criteria.	LD50 dermal	>2000 mg/kg	
	CAS: 288-32-4 EC: 206-019-2 Information on other ha Endocrine disrupting proper Other information	perties ties: The product does not	meet the criteria.	LD50 dermal	>2000 mg/kg	
ECTI The ex Based	CAS: 288-32-4 EC: 206-019-2 Information on other ha Endocrine disrupting proper Endocrine-disrupting proper Other information Non-applicable	perties ties: The product does not FORMATION ed to the eco-toxicological ication criteria are not met,	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI The ex Based For mo	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN experimental information relate on available data, the classif ore information see section 3 Toxicity:	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3.	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI The ex Based For mo	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN experimental information related on available data, the classif ore information see section 3 Toxicity: Not available	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3.	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI he ex ased or mo 2.1 2.2	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN experimental information related on available data, the classif ore information see section 3 Toxicity: Not available Persistence and degrada	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3.	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI he ex ased or mo 2.1 2.2	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN experimental information relate on available data, the classif ore information see section of Toxicity: Not available Persistence and degradat Not available	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3.	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
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ECTI The ex Based Cor mo 2.1 2.2 2.3 2.4 2.5	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN Experimental information relate on available data, the classif ore information see section of Toxicity: Not available Persistence and degradat Not available Bioaccumulative potentia Not available Mobility in soil: Not available Results of PBT and vPvB	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3. bility: al: assessment: vPvB criteria	properties of the pro	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI The ex Based Cor mo 2.1 2.2 2.3 2.4 2.5	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN experimental information related on available data, the classif ore information see section of Toxicity: Not available Persistence and degradad Not available Bioaccumulative potentia Not available Mobility in soil: Not available Results of PBT and vPvB Product does not meet PBT/	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3. bility: assessment: vPvB criteria perties:	properties of the pro , as it does not conta	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.
ECTI The ex Based Corma 2.1 2.2 2.3 2.4 2.5 2.5 2.6	CAS: 288-32-4 EC: 206-019-2 Information on other has Endocrine disrupting proper Other information Non-applicable ION 12: ECOLOGICAL IN Apperimental information related on available data, the classif ore information see section of Toxicity: Not available Persistence and degradad Not available Bioaccumulative potentia Not available Mobility in soil: Not available Results of PBT and vPvB Product does not meet PBT/ Endocrine disrupting prop	perties ties: The product does not FORMATION ed to the eco-toxicological p ication criteria are not met, 3. bility: assessment: vPvB criteria perties:	properties of the pro , as it does not conta	LD50 dermal LC50 inhalation	>2000 mg/kg >5 mg/L	or this effect.

Revised: 12/10/2023



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific

legislation

CZ0549 - β-Amylase 14A, Bacillus circulans

Date of compilation: 23/06/2020

Revised: 12/10/2023

Version: 2 (Replaced 1)

13.1 Waste treatment methods:

SECTION 13: DISPOSAL CONSIDERATIONS

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):

HP10 Toxic for reproduction

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		Non-applicable
	according to IMO instruments:	
_		
•	t of dangerous goods by sea:	
With rega	rd to IMDG 40-20:	
14.1	UN number or ID number:	Non-applicable
14.2	UN proper shipping name:	Non-applicable
14.3	Transport hazard class(es):	Non-applicable
	Labels:	Non-applicable
14.4		NI STATE POLITIC
	Packing group:	Non-applicable
	Marine pollutant:	Non-applicable No
	Marine pollutant:	
14.5	Marine pollutant:	
14.5	Marine pollutant: Special precautions for user	No
14.5	Marine pollutant: Special precautions for user Special regulations:	No
14.5	Marine pollutant: Special precautions for user Special regulations: EmS Codes:	No Non-applicable
14.5	Marine pollutant: Special precautions for user Special regulations: EmS Codes: Physico-Chemical properties:	No Non-applicable see section 9
14.5	Marine pollutant: Special precautions for user Special regulations: EmS Codes: Physico-Chemical properties: Limited quantities: Segregation group: Maritime transport in bulk	No Non-applicable see section 9 Non-applicable
14.5 14.6	Marine pollutant: Special precautions for user Special regulations: EmS Codes: Physico-Chemical properties: Limited quantities: Segregation group:	No Non-applicable see section 9 Non-applicable Non-applicable
14.5 14.6 14.7	Marine pollutant: Special precautions for user Special regulations: EmS Codes: Physico-Chemical properties: Limited quantities: Segregation group: Maritime transport in bulk according to IMO	No Non-applicable see section 9 Non-applicable Non-applicable

Safety data sheet legislation

This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific NZYtech

CZ0549 - β-Amylase 14A, Bacillus circulans

n: 23/06/2020 Revised: 12	/10/2023	Version: 2 (Replaced 1)
TRANSPORT INFORMATION	(continued)	
gard 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	
Packing group:	Non-applicable	
Environmental hazards:	No	
Special precautions for user		
Physico-Chemical properties:	see section 9	
 Maritime transport in bulk according to IMO instruments: 	Non-applicable	
	TRANSPORT INFORMATION gard to IATA/ICAO 2023: UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels: Packing group: Environmental hazards: Special precautions for user Physico-Chemical properties: Maritime transport in bulk according to IMO	TRANSPORT INFORMATION (continued) gard to IATA/ICAO 2023: UN number or ID number: UN proper shipping name: Transport hazard class(es): Labels: Packing group: Environmental hazards: Special precautions for user Physico-Chemical properties: Maritime transport in bulk according to IMO

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

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

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

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):

Product classified hazardous under the CMR. Sale and distribution to the general public is prohibited. Due to its CMR category, it is essential to apply the specific measures for workplace hazard prevention covered in articles 4 and 5 of the 2004/37/EC Directive and later modifications.

Shall not be used in:

and ashtravs.

-tricks and jokes,

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

Specific provisions in terms of protecting people or the environment:

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

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

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

** Changes with regards to the previous version

Safety data sheet This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

NZYtech

CZ0549 - β-Amylase 14A, *Bacillus circulans*

Date of compilation: 23/06/2020	Revised: 12/10/2023	Version: 2 (Replaced 1)
SECTION 16: OTHER INFORM	1ATION ** (continued)	
COMMISSION REGULATION CLP Regulation (EC) No 12 · Hazard statements	I (EU) 2020/878 72/2008 (SECTION 2, SECTI	ON 16):
Texts of the legislative H315: Causes skin irritation H360D: May damage the u H319: Causes serious eye	nborn child.	tion 2:
-	phrases mentioned in sec	tion 3:
The phrases indicated do r individual components wh		; they are present merely for informative purposes and refer to the
CLP Regulation (EC) No Acute Tox. 4: H302 - Harm Eye Dam. 1: H318 - Cause Repr. 1B: H360D - May dat	1272/2008: ful if swallowed. s serious eye damage. nage the unborn child.	
	es severe skin burns and ey	e damage.
	-	risks for staff using this product and to facilitate their comprehension and
Principal bibliographica		
http://echa.europa.eu http://eur-lex.europa.eu	sources.	
Abbreviations and acror	iyms:	
IMDG: International mariti IATA: International Air Tra ICAO: International Civil Av COD: Chemical Oxygen De	me dangerous goods code insport Association riation Organisation emand	Il carriage of dangerous goods by road
BOD5: 5day biochemical ox BCF: Bioconcentration fact LD50: Lethal Dose 50 LC50: Lethal Concentration	or 1 50	
EC50: Effective concentrati LogPOW: Octanolwater pa Koc: Partition coefficient o UFI: unique formula identi	rtition coefficient f organic carbon	
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.