

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

CZ0999 - Cellulase 9K, Ruminiclostridium thermocellum

Date of	compilation: 23/06	/2020 Revised: 12/10/2023 Version: 2 (Replaced 1)
SEC	TION 1: IDENTIF	ICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1	Product identif	ier: CZ0999 - Cellulase 9K, <i>Ruminiclostridium thermocellum</i>
		Glycerol
	CAS:	56-81-5
	EC:	200-289-5
	Index:	Non-applicable
	REACH:	01-2119471987-18-XXXX
	Other means of	f identification:
	Non-applicable	
1.2	Relevant identi	fied uses of the substance or mixture and uses advised against:
	Relevant uses: La	aboratory. For professional users only.
	Uses advised aga	inst: All uses not specified in this section or in section 7.3
1.3	Details of the s	upplier of the safety data sheet:
1.4	Emergency tele	ephone number: Contact Local Poison Information Center or Local Emergency Number
SEC	TION 2: HAZARD	DS IDENTIFICATION **
2.1	Classification o	f the substance or mixture:
	CLP Regulation	n (EC) No 1272/2008:
	Classification of t	this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
	Eye Irrit. 2: Eye i	irritation, Category 2, H319

Repr. 1B: Reproductive toxicity, 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:

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.

** 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	(1) (2) (4)	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 eve 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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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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e of (compilation: 23/06/2020 Revised	: 12/10/2023 V	ersion: 2 (Replace	ed 1)		
ECT	TION 7: HANDLING AND STORAGE	(continued)				
	Product is non-flammable under no to avoid the generation of electrost conditions and materials that shoul C Technical recommendations on gen	tatic charges that can a ld be avoided.	ffect flammable	use. It is recomr products. Consul	nended to trans t section 10 for	fer at slow speed: information on
	PREGNANT WOMEN SHOULD NOT necessary safety conditions (emerged equipment, especially on the hands drink during the process, washing D Technical recommendations to prev	BE EXPOSED TO THIS gency showers and eye and face (See section 8 hands afterwards with	PRODUCT. Trans wash stations in (3). Limit manual t	close proximity), ransfers to small	using personal	protection
	It is recommended to have absorbe	nt material available at	close proximity to	the product (Se	e subsection 6.3	3)
.2	Conditions for safe storage, includi	ng any incompatibilit	ies:			
	A Technical measures for storage					
	Store in a cool, dry, well-ventilated	location				
	B General conditions for storage					
	Avoid sources of heat, radiation, sta	atic electricity and conta	ct with food. For	additional inform	ation see subse	ction 10.5
.3	Specific end use(s):	-				
	Except for the instructions already spec product.	ified it is not necessary	to provide any sp	ecial recommen	dation regarding	g the uses of this
	•					
	TION 8: EXPOSURE CONTROLS/PER Control parameters: Substances whose occupational exposu legislation):			kplace (Europea	n OEL, not coun	try-specific
5ECT 3.1	Control parameters:	ire limits have to be mo	nitored in the wor			try-specific
	Control parameters: Substances whose occupational exposulegislation): There are no applicable occupational exp	ire limits have to be mo	nitored in the wor bstances containe			try-specific g exposure
	Control parameters: Substances whose occupational exposulegislation): There are no applicable occupational exp	ire limits have to be mo	nitored in the wor bstances containe	ed in the product		
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole	re limits have to be mo posure limits for the su <u>Oral</u>	nitored in the wor bstances containe Short Systemic Non-applicable	ed in the product exposure Local Non-applicable	Long Systemic Non-applicable	g exposure Local Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4	re limits have to be mo cposure limits for the su Oral Dermal	nitored 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	g exposure Local Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2	re limits have to be mo posure limits for the su <u>Oral</u>	nitored in the wor bstances containe Short Systemic Non-applicable	ed in the product exposure Local Non-applicable	Long Systemic Non-applicable	g exposure Local Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population):	re limits have to be mo cposure limits for the su Oral Dermal	nitored 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	g exposure Local Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable	re limits have to be mo cposure limits for the su Oral Dermal	nitored 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	g exposure Local Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC:	re limits have to be mo cposure limits for the su Oral Dermal	nitored 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	g exposure Local Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification	Ire limits have to be mo posure limits for the su Oral Dermal Inhalation	nitored in the wor bstances containe Short Systemic Non-applicable Non-applicable	ed in the product	Long Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	y exposure Local Non-applicable Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification Imidazole	Ire limits have to be mo cposure limits for the su Oral Dermal Inhalation STP	nitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable	ed in the product	Long Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	g exposure Local Non-applicable Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification Imidazole CAS: 288-32-4	Ire limits have to be mo cposure limits for the su Oral Dermal Inhalation STP Soil	nitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable	ed in the product	Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	y exposure Local Non-applicable Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification Imidazole	Ire limits have to be mo cposure limits for the su Oral Dermal Inhalation STP	nitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable	ed in the product	Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	g exposure Local Non-applicable Non-applicable Non-applicable
	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification Imidazole CAS: 288-32-4	ure limits have to be mo posure limits for the su Oral Dermal Inhalation STP Soil Intermittent	nitored in the wor bstances containe Short Non-applicable Non-applicable Non-applicable 10 mg/L 0,043 mg/kg 1,3 mg/L	ed in the product	Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	J Exposure Local Non-applicable Non-applicable Non-applicable Non-applicable
3.1	Control parameters: Substances whose occupational exposu- legislation): There are no applicable occupational ex- DNEL (Workers): Identification Imidazole CAS: 288-32-4 EC: 206-019-2 DNEL (General population): Non-applicable PNEC: Identification Imidazole CAS: 288-32-4 EC: 206-019-2	Ire limits have to be mo cposure limits for the su Oral Dermal Inhalation STP Soil Intermittent Oral	nitored 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	Systemic Non-applicable 1,5 mg/kg 10,6 mg/m ³	J Exposure Local Non-applicable Non-applicable Non-applicable Non-applicable



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		CONTROLS/PERSONA				
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory respiratory tract protection	Filter mask for gases and vapours	CAT III	EN 405:2002+A1:2010	c	place when there is a taste or smell of th 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)		EN ISO 21420:2020	Rep	lace the gloves at any sign of deteriorati
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 accordin nanufacturer´s instructions. Use if there risk of splashing.
E	Body protection					
	Pictogram	PPE	Labelling	CEN Standard		Remarks
	Mandatory complete body protection	Disposable clothing for protection against chemical risks	CAT III	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		or professional use only. Clean periodical ording to the manufacturer's instructions
	Mandatory foot protection	Safety footwear for protection against chemical risk		EN ISO 20345:2011 EN 13832-1:2019	R	eplace boots at any sign of deterioration.
F /	Additional emerge	ency measures				
	Emergency mea	asure St	andards	Emergency me	asure	Standards
	Emergency sho	ISO 3864-1:20	SI Z358-1 11, ISO 3864-4:20	011 Eyewash stat	ons	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:201
Env	vironmental exp	osure controls:				•
In a spill Vol a	accordance with the plage of both the platile organic col	e community legislation froduct and its container.	. For additional	information see subse		nmended to avoid environmental .D
	V.O.C. (Supply):	0 % \	weight			
	V.O.C. density at	20 °C: 0 kg/	m³ (0 g/L)			
	Average carbon n	umber: Non-a	applicable			

9.1 Information on basic physical and chemical properties:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTI							
	IES (continued)						
For complete information see the product datasheet	t.						
Appearance:							
Physical state at 20 ºC:	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/m³						
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						
9.2 Other information:							
Information with regard to physical hazard cl							
Explosive properties:	Non-applicable *						
Oxidising properties: Corrosive to metals:	Non-applicable *						
Heat of combustion:	Non-applicable * 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 in							

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)								
	Refraction index: Non-applicable *							
	*Not relevant due to the nature of the product, not providing information property of its hazards.							
SECTION 10: STABILITY AND REACTIVITY								
10.1	Reactivity:							
10.2	No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet. 2 Chemical stability:							
	Chemically stable under the	e indicated conditions of s	torage, handling and use.					
10.3	Possibility of hazardous	reactions:						
	Under the specified condition	ons, hazardous reactions t	that lead to excessive temp	eratures or pressure are	not expected.			
10.4	Conditions to avoid:							
	Applicable for handling and	l storage at room tempera	ature:					
	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			

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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SECT	ION 11: TOXICOLOGICA	_ INFORMATION (contin	ued)				
	E- Sensitizing effects:						
	 Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3. Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3. F- Specific target organ toxicity (STOT) - single exposure: 						
	Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3. G- Specific target organ toxicity (STOT)-repeated exposure:						
	 Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3. Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3. Aspiration hazard: 						
	Based on available data, this effect. For more info Other information:	the classification criteria are ormation see section 3.	e not met, as it doe	s not contain subst	ances classified as haz	ardous for	
	Non-applicable						
	Specific toxicology inform	nation on the substances:	ł				
		Identification		Acu	te toxicity	Genus	
	Imidazole			LD50 oral	500 mg/kg (ATEi)		
	CAS: 288-32-4			LD50 dermal	>2000 mg/kg		
11.2	EC: 206-019-2 Information on other ha			LC50 inhalation	>5 mg/L		
	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable	perties	leet the criteria.				
	Endocrine disrupting prop Endocrine-disrupting propert Other information	perties	leet the criteria.				
	Endocrine disrupting prop Endocrine-disrupting propert Other information	perties ties: The product does not m	leet the criteria.				
SECT	Endocrine disrupting prop Endocrine-disrupting propert Other information Non-applicable	perties ties: The product does not m FORMATION		duct itself is not av	ailable		
SECT The ex Based For m	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN experimental information related on available data, the classifi ore information see section 3 Toxicity:	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a	operties of the pro			this effect.	
SECT The ex Based For m 12.1	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN xperimental information relate on available data, the classifi ore information see section 3 Toxicity: Not available	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a 3.	operties of the pro			this effect.	
SECT The ex Based For m 12.1	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN experimental information relate on available data, the classifi ore information see section 3 Toxicity: Not available Persistence and degradal	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a 3.	operties of the pro			this effect.	
SECT The ex Based For m 12.1 12.2	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN Experimental information related on available data, the classifi ore information see section 3 Toxicity: Not available Persistence and degradal Not available	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a 3.	operties of the pro			this effect.	
SECT The ex Based For m 12.1 12.2	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN Experimental information relate on available data, the classifi ore information see section a Toxicity: Not available Persistence and degradal Not available Bioaccumulative potentia	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a 3.	operties of the pro			this effect.	
SECT The ex Based For m 12.1 12.2 12.3	Endocrine disrupting propert Endocrine-disrupting propert Other information Non-applicable ION 12: ECOLOGICAL IN Experimental information related on available data, the classified ore information see section 3 Toxicity: Not available Persistence and degradal Not available Bioaccumulative potentia Not available	perties ties: The product does not m FORMATION ed to the eco-toxicological pr ication criteria are not met, a 3.	operties of the pro			this effect.	
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Revised: 12/10/2023



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

legislation

CZ0999 - Cellulase 9K, Ruminiclostridium thermocellum

Date of compilation: 23/06/2020

Revised: 12/10/2023

Version: 2 (Replaced 1)

SECTION 13: DISPOSAL CONSIDERATIONS 13.1 Waste treatment methods: Waste class (Regulation (EU) No Code Description 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

 14.5
 Environmental hazards:
 No

 14.6
 Special precautions for user
 No

 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:

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

	UN number or ID number: UN proper shipping name:	Non-applicable Non-applicable
14.3	Transport hazard class(es):	Non-applicable
14.4	Labels: Packing group:	Non-applicable Non-applicable
14.5		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 according to IMO instruments:	Non-applicable

Revised: 12/10/2023

Transport of dangerous goods by air:

- CONTINUED ON NEXT PAGE -

Non-applicable

Safety data sheet legislation

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Date of compilation:	23/06/2020 Revised: 12	/10/2023	Version: 2 (Replaced 1)				
SECTION 14: T	RANSPORT INFORMATION	(continued)					
With rega	With regard to IATA/ICAO 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						
	Physico-Chemical properties:	see section 9					
14.7	Maritime transport in bulk according to IMO instruments:	Non-applicable					

SECTION 15: REGULATORY INFORMATION

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

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

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

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

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

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



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Date of compilation: 23/06/2020	Revised: 12/10/2023	Version: 2 (Replaced 1)
SECTION 16: OTHER INFORM	ATION ** (continued)	
individual components whic CLP Regulation (EC) No Acute Tox. 4: H302 - Harmf	2/2008 (SECTION 2, SECTION hrases mentioned in sec born child. ritation. hrases mentioned in sec h refer to the product itself; h appear in section 3 L272/2008: ul if swallowed.	tion 2:
Eye Dam. 1: H318 - Causes Repr. 1B: H360D - May dam Skin Corr. 1C: H314 - Cause Advice related to training	age the unborn child. s severe skin burns and eye	e damage.
Training is recommended in interpretation of this safety		risks for staff using this product and to facilitate their comprehension and label on the product.
Principal bibliographical	sources:	
http://echa.europa.eu http://eur-lex.europa.eu		
Abbreviations and acrony		
IMDG: International maritin IATA: International Air Trar ICAO: International Civil Avi COD: Chemical Oxygen Der BOD5: 5day biochemical oxy BCF: Bioconcentration facto LD50: Lethal Dose 50 LC50: Lethal Concentration EC50: Effective concentratio LogPOW: Octanolwater part Koc: Partition coefficient of	ne dangerous goods code asport Association ation Organisation nand gen demand r 50 n 50 ition coefficient organic carbon	l carriage of dangerous goods by road
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.