

Kit SDS Cover Sheet EGM Bullet Kit

Version 2.0 Revision Date 12.12.2018 Print Date 10.03.2021

Product Information

Product name : EGM Bullet Kit Material number : CC-3124

Components

EBM Basal Medium	SDS attached	
CC-4133 EGM Sing	gleQuot Kit Suppl&Growth Factors	
	HEGF 10UG/ML FOR USE IN EGM KIT	SDS attached
	Hydrocortisone solution	SDS attached
	GA-1000	SDS attached
	BBE - BOVINE BRAIN EXTRACT 3mg/ml	SDS attached
	Fetal Bovine Serum	SDS attached
	Ascorbic Acid Solution	SDS attached



according to Regulation (EC) No. 1907/2006

EBM Basal Medium

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021				
SECTION 1: Identification of the substance/mixture and of the company/undertaking						
1.1 Product identifier Product name	: EBM Basal Medium					
1.2 Relevant identified uses of the substance or mixture and uses advised against						
Use of the Substance/Mixture	: For Research Use Only. Not for use in dia					
1.3 Details of the supplier of the safety	data sheet					
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11					
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611					
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990					
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400					
E-mail address Responsible/issuing person	sds@lonza.com					
1.4 Emergency telephone number	1.4 Emergency telephone number					
Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)					

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



according to Regulation (EC) No. 1907/2006

EBM Basal Medium

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SECTION 3: Composition/inform	nation on ingredients	
3.2 Mixtures		
Components		
Remarks	: No hazardous ingredients	
SECTION 4: First aid measures		
4.1 Description of first aid measure	S	
If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a pre- If skin irritation persists, call a physic	
In case of eye contact	: Immediately flush eye(s) with plenty If eye irritation persists, consult a sp	
If swallowed	: Immediately give large quantities of Do not induce vomiting without med Never give anything by mouth to an	lical advice.
4.2 Most important symptoms and e	effects, both acute and delayed	
Symptoms	: No information available.	
4.3 Indication of any immediate me	dical attention and special treatment need	led
Treatment	: No information available.	
SECTION 5: Firefighting measur	es	
5.1 Extinguishing media		
Suitable extinguishing media	: Water spray Dry powder Foam	
5.2 Special hazards arising from the	substance or mixture	
5.2 Special hazards arising from the Specific hazards during firefightin		5.
		5.
Specific hazards during firefightin		



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SECTION 6: Accidental release mea	su	res	
6.1 Personal precautions, protective eq	uip	ment and emergency procedures	
Personal precautions	:	Use personal protective equipment.	
6.2 Environmental precautions			
Environmental precautions	:	Prevent product from entering drains.	
6.3 Methods and material for containme	ent	and cleaning up	
Methods for cleaning up	:	Contain spillage, and then collect with non- absorbent material, (e.g. sand, earth, diato vermiculite) and place in container for disp local / national regulations (see section 13)	maceous earth, osal according to
6.4 Reference to other sections			
For personal protection see section 8			
SECTION 7: Handling and storage			
7.1 Precautions for safe handling			
Advice on safe handling	:	No special precautions required.	
Advice on protection against fire and explosion	:	Take precautionary measures against stati	c discharges.
Hygiene measures	:	Handle in accordance with good industrial practice.	hygiene and safety
7.2 Conditions for safe storage, includi	ng	any incompatibilities	
Requirements for storage areas and containers	:	No special storage conditions required.	
7.3 Specific end use(s)			
Specific use(s)	:	No information available.	

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Avoid splashes.



according to Regulation (EC) No. 1907/2006

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Personal protective equipment		
Eye protection	: Tightly fitting safety goggles	
Hand protection Material	: Nitrile rubber	
Rate of permeability	: > 480 min	
Skin and body protection	: Choose body protection according to concentration of the dangerous subst No special protective equipment requ	ance at the work place.
Respiratory protection	: No personal respiratory protective eq required.	uipment normally

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	no data available
Odour	:	no data available
Odour Threshold	:	no data available
рН	:	7,5 - 8,0
Freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	does not flash
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	no data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	no data available



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Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity	:	no data available	
Explosive properties		no data available	
Oxidizing properties		no data available	
	•		
9.2 Other information no data available			
 10.1 Reactivity Stable under recommended stora 10.2 Chemical stability 	age cor	ditions.	
Stable under normal conditions.			
10.3 Possibility of hazardous react	ons		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid Conditions to avoid	:	no data available	
10.5 Incompatible materials Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition pro No decomposition if stored norm			
SECTION 11: Toxicological info	rmatio	n	
11.1 Information on toxicological e	ffects		
Further information		Remarks: No data is available on the produc	t itself.
SECTION 12: Ecological information	ation		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Result: no data available	
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12.3 Bioa	accumulative potential		
Bioa	accumulation	: Remarks: no data available	
12.4 Mot	oility in soil		
	ribution among environmental partments	: Remarks: no data available	
12.5 Res	ults of PBT and vPvB assess	nent	
Asse	essment	: This substance/mixture contains no be either persistent, bioaccumulative persistent and very bioaccumulative higher.	e and toxic (PBT), or very
12.6 Oth	er adverse effects		
Addi	itional ecological information	: no data available	
SECTIO	N 13: Disposal consideration	ons	
40 4 10/-			
13.1 was	ste treatment methods		
Due	l t	Discourse of the second second by the local	na av dati av a
Proc		: Dispose of in accordance with local	regulations.
	N 14: Transport informatio		regulations.
SECTIO IATA	N 14: Transport informatio	n Not dangerous goods	regulations.
SECTIO IATA 14.1	N 14: Transport informatio	n Not dangerous goods : Not applicable	regulations.
SECTIO IATA 14.1 (14.2 (N 14: Transport informatio UN number Proper shipping name	n Not dangerous goods : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3	N 14: Transport informatio	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 ⁻ 14.4	N 14: Transport informatio UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 ⁻¹ 14.4	N 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG	N 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1	N 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
SECTIO	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable no Not dangerous goods Not applicable Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 14.4 14.5 14.4 14.5 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not dangerous goods	regulations.
SECTIO IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	regulations.



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RID		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
DOT		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
TDG		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
14.6	Special precautions for user	: none	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and	nd d	of the Council on the control of

major-accident hazards involving dangerous substances. Not applicable



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National regulatory information		
Water contaminating class (Germany)	: WGK 1 slightly hazardous to water Classification according to AwSV, An	nex 1 (5.2)
15.2 Chemical safety assessment		

not required

SECTION 16: Other information

Further information

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate: AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals: GLP - Good Laboratory Practice: GV – Danish Exposure Limits for Substances and Materials: IARC - International Agency for Research on Cancer: IATA - International Air Transport Association: IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide - National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG -Dutch Threshold Limit Value; TGV - Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

dd.mm.yyyy



according to Regulation (EC) No. 1907/2006

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021			
SECTION 1: Identification of the substance/mixture and of the company/undertaking					
1.1 Product identifier					
Product name	: Hydrocortisone solution				
1.2 Relevant identified uses of the substance or mixture and uses advised against					
Use of the Substance/Mixture	: Scientific research and development				
1.3 Details of the supplier of the safety d	ata sheet				
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11				
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611				
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990				
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400				
E-mail address Responsible/issuing person	sds@lonza.com				
1.4 Emergency telephone number Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)				

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2 Eye irritation, Category 2

H225: Highly flammable liquid and vapour. H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

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Signal word	: Danger	
Hazard statements	: H225 Highly flammable liquid and vap H319 Causes serious eye irritation.	our.
Precautionary statements	Prevention:	
	 P210 Keep away from heat, hot surfact flames and other ignition sources. No sert P233 Keep container tightly closed. P280 Wear protective gloves/ protection/ face protection. 	noking.
	Response:	
	P303 + P361 + P353 IF ON SKIN (or immediately all contaminated clothing. F P337 + P313 If eye irritation persists: attention. P370 + P378 In case of fire: Use dry s alcohol-resistant foam to extinguish.	Rinse skin with water. Get medical advice/

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. REACH Registration Number	Classification	Concentration (% w/w)
Ethanol	64-17-5 603-002-00-5 01-2119457610-43-XX XX	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 90 - <= 100
Hydrocortisone	50-23-7	Repr. 2; H361f	>= 0,1 - < 0,2

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. Get medical attention immediately if irritation develops and persists.

:



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In case of skin contact	:	After contact with skin, wash immediately with plenty of soap and water. If skin irritation persists, call a physician.		
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.		
If swallowed	:	 Do not induce vomiting without medical advice. Immediately give large quantities of water to drink. Call a physician immediately. Never give anything by mouth to an unconscious person. 		
4.2 Most important symptoms and effe	ects	, both acute and delayed		
Symptoms	:	No information available.		
4.3 Indication of any immediate medic	al a	tention and special treatment neede	ed	
Treatment	:	No information available.		
SECTION 5: Firefighting measures				
5.1 Extinguishing media				
Suitable extinguishing media	:	Dry powder Water spray Foam		
5.2 Special hazards arising from the s	ubst	ance or mixture		
Specific hazards during firefighting	:	Heating or fire can release toxic gas.		
5.3 Advice for firefighters				
Special protective equipment for firefighters	:	In the event of fire, wear self-contained	ed breathing apparatus.	
Further information	:	Use water spray to cool unopened co	ontainers.	
SECTION 6: Accidental release me	asu	res		
6.1 Personal precautions, protective e	quip	oment and emergency procedures		
Personal precautions	:	Use respirator when performing oper exposure to vapour of the product.	ations involving potential	
6.2 Environmental precautions				
Environmental precautions	:	Do not flush into surface water or sar	nitary sewer system.	
6.3 Methods and material for containm	nent	and cleaning up		
Methods for cleaning up	:	Contain spillage, soak up with non-co material, (e.g. sand, earth, diatomace and transfer to a container for dispos	eous earth, vermiculite)	

and transfer to a container for disposal according to local /



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Hydrocortisone solution

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		national regulations (see section 13).	
6.4 Reference to other sections			
For personal protection see section 8	8.		
SECTION 7: Handling and storage			
7.1 Precautions for safe handling			
Advice on safe handling	:	Provide sufficient air exchange and/or e In case of insufficient ventilation, wear s equipment. Avoid contact with skin and eyes.	
Advice on protection against fire and explosion	:	Highly flammable. Keep away from sour smoking. Take precautionary measures discharges.	5
Hygiene measures	:	Avoid contact with skin, eyes and clothin breaks and immediately after handling t	•
7.2 Conditions for safe storage, includi	ng	any incompatibilities	
Requirements for storage areas and containers	:	Keep away from sources of ignition - No containers tightly closed in a cool, well-v	
7.3 Specific end use(s)			
Specific use(s)	:	No information available.	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Countries not listed may have their own country specific values.

Occupational Exposure Limits

Switzerland

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	TWA	500 ppm 960 mg/m3	SMAK
		STEL	1 000 ppm 1 920 mg/m3	SMAK

Germany

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5		500 ppm 960 mg/m3	TRGS 900
Peak-limit: excursion factor (category)		Peak-limit: excursion	on factor (category) 2	



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		MAK	200 ppm 380 mg/m3	DFG MAK
Peak-limit: excurs (category)	sion factor	Peak-limit: excursion	on factor (category) 4	
Belgium				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	TWA	1 000 ppm 1 907 mg/m3	BE/OEL
Denmark				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	GV	1 000 ppm 1 900 mg/m3	GV (DK)
France				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	VLE	5 000 ppm 9 500 mg/m3	FVL
		VME	1 000 ppm 1 900 mg/m3	FVL
Italy				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	STEL	1 000 ppm	OEL (IT)
Netherlands				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	TGG	260 mg/m3	NL OEL
		TGG 15	1 900 mg/m3	NL OEL
Spain	I		1	
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	STEL	1 000 ppm 1 910 mg/m3	VLA
Sweden				
Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	TWA	500 ppm 1 000 mg/m3	SWO
		STEL	1 000 ppm 1 900 mg/m3	SWO

United Kingdom

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
Ethanol	64-17-5	TWA	1 000 ppm	EH40 WEL	



according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

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	1 920 mg/m3			
Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:				

Substance name	End Use	Exposure routes	Potential health effects	Value
Ethanol	Workers	Inhalation	Acute local effects	1900 mg/m3
	Consumers	Oral	Long-term systemic effects	87 mg/kg
	Consumers	Dermal	Long-term systemic effects	206 mg/kg
	Consumers	Inhalation	Acute local effects	950 mg/m3
	Consumers	Inhalation	Long-term systemic effects	114 mg/m3
	Workers	Inhalation	Long-term systemic effects	950 mg/m3
	Workers	Dermal	Long-term systemic effects	343 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment Value	
Ethanol	Fresh water	0,96 mg/l
	Soil	0,63 mg/kg
	Fresh water sediment	3,6 mg/kg
	Marine water	0,79 mg/l
	Sewage treatment plant	580 mg/l
	Oral	720 mg/l
	Intermittent use/release	2,75 mg/l

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment Eye protection	:	Tightly fitting safety goggles
Hand protection Material Rate of permeability	:	Nitrile rubber > 480 min
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. No special protective equipment required.
Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
		Respirator with a vapour filter (EN 141) Respirator with ABEK filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties



according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.2021
Colour	:	colourless	
Odour	:	alcohol-like	
Odour Threshold	:	no data available	
рН	:	no data available	
Melting point/range	:	-114,5114 °C Information refers to the main component.	
Boiling point/boiling range	:	78 °C Information refers to the main component.	
Flash point	:	12 °C Information refers to the main component.	
Evaporation rate	:	no data available	
Flammability (solid, gas)	:	no data available	
Upper explosion limit	:	15,0 %(V) Information refers to the main component.	
Lower explosion limit	:	3,5 %(V) Information refers to the main component.	
Vapour pressure	:	no data available	
Relative vapour density	:	no data available	
Relative density	:	no data available	
Density	:	0,79 g/cm3 (20 °C)	
Solubility(ies) Water solubility	:	completely miscible	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity Viscosity, dynamic	:	1,17 - 1,2 mPa.s (20 °C)	
Explosive properties	:	no data available	
Oxidizing properties	:	no data available	

9.2 Other information

no data available



according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

		Revision Date 12.12.2018	Print Date 10.03.202
SECTION 10: Stability and reactivity	у		
10.1 Reactivity			
Stable under recommended storage	con	ditions.	
10.2 Chemical stability			
Stable under normal conditions.			
10.3 Possibility of hazardous reactions	;		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid	:	Keep away from heat and sources of ig	nition.
10.5 Incompatible materials			
Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition produc	ts		
Carbon dioxide (CO2)			
Carbon monoxide			
No decomposition if stored normally.			
11.1 Information on toxicological effect Further information	tio ts		
-		Remarks: No data is available on the pr	roduct itself.
Further information	ts		roduct itself.
Further information SECTION 12: Ecological informatio	ts		roduct itself.
Further information SECTION 12: Ecological informatio	ts		roduct itself.
Further information SECTION 12: Ecological informatio 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability	ts	Remarks: No data is available on the pr	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish	ts	Remarks: No data is available on the pr	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability 12.3 Bioaccumulative potential	ts	Remarks: No data is available on the provide the provide the second state and the second state available result: no data available	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability	ts	Remarks: No data is available on the provide the provided the second state of the provided th	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability 12.3 Bioaccumulative potential Bioaccumulation	ts	Remarks: No data is available on the provide the provide the second state and the second state available result: no data available	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability 12.3 Bioaccumulative potential Bioaccumulation	ts	Remarks: No data is available on the provide the provide the second state and the second state available result: no data available	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability 12.3 Bioaccumulative potential Bioaccumulation 12.4 Mobility in soil Distribution among environmental compartments	ts n : :	Remarks: No data is available on the pro- Remarks: no data available Result: no data available Remarks: no data available Remarks: no data available	roduct itself.
Further information SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish 12.2 Persistence and degradability Biodegradability 12.3 Bioaccumulative potential Bioaccumulation 12.4 Mobility in soil Distribution among environmental	ts n : :	Remarks: No data is available on the pro- Remarks: no data available Result: no data available Remarks: no data available Remarks: no data available	nponents considered to



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	persistent and very bioaccumulat higher.	tive (vPvB) at levels of 0.1% or
12.6 Other adverse effects Additional ecological information	: No data is available on the produ	uct itself.
SECTION 13: Disposal considerati	ons	
SECTION 13: Disposal considerati	ons	
	 Ons Dispose of in accordance with log Contact waste disposal services. 	•

ΙΑΤΑ

14.1	UN number	: 1170
14.2	Proper shipping name	: Ethanol solution
14.3	Transport hazard class	: 3
14.4	Packing group	: 11
	Labels	: 3
14.5	Environmental hazards	: no
IMDG		
14.1	UN number	: 1170
14.2	Proper shipping name	: Ethanol solution
14.3	Transport hazard class	· 3

14.3	Transport hazard class	: 3
14.4	Packing group	: 11
	Labels	: 3
	EmS Number 1	: F-E
	EmS Number 2	: S-D
14.5	Environmental hazards	: Marine pollutant: no

ADR

14.1	UN number	: 1170	
14.2	Proper shipping name	: ETHANC	L SOLUTION
14.3	Transport hazard class	: 3	
14.4	Packing group	: 11	
	Classification Code	: F1	
	Hazard Identification Number	: 33	
	Labels	: 3	
14.5	Environmental hazards	: no	



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Hydrocortisone solution

Version	2.0	Revision Date 12.12.2018	Print Date 10.03.2021
RID			
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Classification Code Hazard Identification Number Labels Environmental hazards	: 1170 : ETHANOL SOLUTION : 3 : II : F1 : 33 : 3 : no	
DOT		. 110	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Labels Emergency Response Guidebook Number Environmental hazards	: 1170 : Ethanol solutions : 3 : II : 3 : 127 : no	
TDG			
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Labels Environmental hazards	: 1170 : ETHANOL SOLUTION : 3 : II : 3 : no	
14.6	Special precautions for user Other information	: According to RID/ADR/IMDG-code sp and IATA special provision A58: An aqueous solution containing 24% o volume is not subject to these Regulat	or less alcohol by
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation sp	bec	ific for the substance or mixture
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex	:	Not applicable



according to Regulation (EC) No. 1907/2006

Hydrocortisone solution

rsion 2.0	F	Revision Date 12.12.2018		Print Date 10.03.20
XIV)				
Regulation (EC) No 10 ozone layer	005/2009 on substance	es that deplete the : Not	applicable	
Regulation (EC) No 8	50/2004 on persistent c	organic pollutants : Not	applicable	
	012/18/EU of the Europ Is involving dangerous	pean Parliament and of the substances.	e Council on the	e control of
P5c	0 0	AMMABLE LIQUIDS	Quantity 1 5 000 t	Quantity 2 50 000 t
National regulatory in	formation			
Water contaminating ((Germany)	Co	GK 1 slightly hazardous to de Number: 96		
	mu	marks: The rating refers to st be classified in accordar SV.		
2 Chemical safety ass not required	mu Aw essment	st be classified in accordar		
-	mu Aw essment	st be classified in accordar		
not required	mu Aw essment ormation	st be classified in accordar SV.		dix 1 No. 5 of the
not required	mu Aw essment ormation	st be classified in accordar SV. Classificat	tion procedure	dix 1 No. 5 of the
not required CTION 16: Other info Classification of the	mu Aw essment ormation mixture:	st be classified in accordar SV. Classificat Based on p	tion procedure	dix 1 No. 5 of the
not required CTION 16: Other info Classification of the Flam. Liq. 2	mu Aw essment ormation mixture: H225 H319	st be classified in accordar SV. Classifica t Based on p assessmer	tion procedure	dix 1 No. 5 of the
not required CTION 16: Other info Classification of the Flam. Liq. 2 Eye Irrit. 2 Full text of H-Statem H225	mu Aw essment ormation mixture: H225 H319 ents : Hig	st be classified in accordar SV. Classificat Based on p assessmer Calculation	tion procedure product data or nt n method	dix 1 No. 5 of the
not required CTION 16: Other info Classification of the Flam. Liq. 2 Eye Irrit. 2 Full text of H-Statem H225 H319	essment ormation mixture: H225 H319 ents : Hig : Ca	st be classified in accordar SV. Classificat Based on p assessmer Calculation phly flammable liquid and v uses serious eye irritation.	tion procedure product data or nt n method	dix 1 No. 5 of the
not required CTION 16: Other info Classification of the Flam. Liq. 2 Eye Irrit. 2 Full text of H-Statem H225	essment ormation mixture: H225 H319 ents : Hig : Ca	st be classified in accordar SV. Classificat Based on p assessmer Calculation	tion procedure product data or nt n method	dix 1 No. 5 of the

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR – Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances



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and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG -Dutch Threshold Limit Value; TGV - Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling: TWA -Time Weighted Average: UDS - Unscheduled DNA Synthesis: UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France: VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

: dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

99 / EN

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



according to Regulation (EC) No. 1907/2006

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Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
SECTION 1: Identification of the s	ubstance/mixture and of the company/u	Indertaking
1.1 Product identifier		
Product name	: GA-1000	
1.2 Relevant identified uses of the su	bstance or mixture and uses advised agains	st
Use of the Substance/Mixture	: Scientific research and development	
1.3 Details of the supplier of the safe	ty data sheet	
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11	
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611	
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990	
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400	
E-mail address Responsible/issuing person	sds@lonza.com	
1.4 Emergency telephone number Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



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Hazard pictograms		
Signal word	: Danger	
Hazard statements	: H317 May cause an allergic skin rea H334 May cause allergy or asthma s difficulties if inhaled.	
Precautionary statements	 Prevention: P261 Avoid breathing dust/ fume/ ga P280 Wear protective gloves. P284 Wear respiratory protection. Response: P304 + P340 IF INHALED: Remove keep comfortable for breathing. P333 + P313 If skin irritation or rash advice/ attention. 	person to fresh air and occurs: Get medical
	P342 + P311 If experiencing respira POISON CENTER/doctor.	tory symptoms: Call a

Hazardous components which must be listed on the label:

Gentamicin, sulfate (salt)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	REACH Registration		
	Number		
Gentamicin, sulfate (salt)	1405-41-0	Resp. Sens. 1; H334	>= 3 - < 5
		Skin Sens. 1; H317	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

: When symptoms persist or in all cases of doubt seek medical advice.



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If inhaled	:	Move to fresh air.	
		Call a physician immediately.	ministor ortificial
		If breathing is irregular or stopped, ad respiration.	minister antincial
In case of skin contact	:	After contact with skin, wash immedia	tely with plenty of soap
		and water.	
		Wash clothing before reuse. Get medical attention if irritation devel	lops and persists.
In case of eye contact	:	In the case of contact with eyes, rinse of water and seek medical advice.	immediately with plenty
		If eye irritation persists, consult a spec	cialist.
If swallowed	:	Immediately give plenty of water (if po Do not induce vomiting without medicated	
		Never give anything by mouth to an u	
		Take victim immediately to hospital.	·
2 Most important symptoms an	d effects.	both acute and delayed	
Symptoms	:	Allergic appearance	
		sensitising effects	
.3 Indication of any immediate n	nedical at	tention and special treatment neede	d
.3 Indication of any immediate n Treatment	nedical at :	tention and special treatment needed. Treat symptomatically.	d
Treatment	:	•	d
-	:	•	d
Treatment ECTION 5: Firefighting meas	:	Treat symptomatically.	d
Treatment	:	Treat symptomatically.	
Treatment ECTION 5: Firefighting meas	:	Treat symptomatically.	appropriate to local
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media	: ures :	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er	appropriate to local
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media 2 Special hazards arising from t	: ures : the subst	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er	appropriate to local
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media	: ures : the subst	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er	appropriate to local
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media 2 Special hazards arising from t	: ures : the subst	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er	appropriate to local
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media 2 Special hazards arising from the Specific hazards during firefight 3 Advice for firefighters Special protective equipment for	: ures : the subst	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er	appropriate to local nvironment.
Treatment ECTION 5: Firefighting meas 1 Extinguishing media Suitable extinguishing media 2 Special hazards arising from the Specific hazards during firefighters	: ures : the subst	Treat symptomatically. Not combustible. Use extinguishing measures that are a circumstances and the surrounding er ance or mixture Heating or fire can release toxic gas.	appropriate to local nvironment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use respirator when performing operations involving potential	
	exposure to vapour of the product.	



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	Refer to protective measures listed in	n sections 7 and 8.	
6.2 Environmental precautions			
Environmental precautions	No special environmental precaution	ns required.	
6.3 Methods and material for containmen	t and cleaning up		
Methods for cleaning up	: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).		
6.4 Reference to other sections			
For personal protection see section 8.			
SECTION 7: Handling and storage			
Advice on safe handling	 In case of insufficient ventilation, we equipment. Avoid exposure - obtain special instr Use only in area provided with appro Avoid contact with skin and eyes. 	ructions before use.	
-	equipment. Avoid exposure - obtain special instr Use only in area provided with appro Avoid contact with skin and eyes.	ructions before use.	
Advice on protection against fire and	equipment. Avoid exposure - obtain special instr Use only in area provided with appro Avoid contact with skin and eyes.	nuctions before use. Opriate exhaust ventilation. In and the eyes. Avoid hands before breaks and	
Advice on safe handling Advice on protection against fire and explosion	 equipment. Avoid exposure - obtain special instr Use only in area provided with approvided contact with skin and eyes. Stable under normal conditions. DANGER! Avoid contact with the ski breathing dust or spray mist. Wash h immediately after handling the product 	ructions before use. opriate exhaust ventilation. in and the eyes. Avoid hands before breaks and	
Advice on safe handling Advice on protection against fire and explosion Hygiene measures	 equipment. Avoid exposure - obtain special instr Use only in area provided with appro Avoid contact with skin and eyes. Stable under normal conditions. DANGER! Avoid contact with the ski breathing dust or spray mist. Wash h immediately after handling the production g any incompatibilities 	ructions before use. opriate exhaust ventilation. in and the eyes. Avoid hands before breaks and	
Advice on safe handling Advice on protection against fire and explosion Hygiene measures 7.2 Conditions for safe storage, including Requirements for storage areas and	 equipment. Avoid exposure - obtain special instr Use only in area provided with appro Avoid contact with skin and eyes. Stable under normal conditions. DANGER! Avoid contact with the ski breathing dust or spray mist. Wash h immediately after handling the production g any incompatibilities 	nuctions before use. Opriate exhaust ventilation. In and the eyes. Avoid hands before breaks and	

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.



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Personal protective equipment			
Eye protection	: Safety glasses Safety goggles		
Hand protection			
Material	: Nitrile rubber		
Rate of permeability	: > 480 min		
Skin and body protection	: Choose body protection according to concentration of the dangerous subs Complete suit protecting against che	tance at the work place.	
Respiratory protection	: In case of mist, spray or aerosol expo personal respiratory protection and p		
	Respirator with ABEK filter. Respirator with combination filter for 141)	vapour/particulate (EN	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	light yellow
Odour	:	odourless
Odour Threshold	:	no data available
рН	:	no data available
Freezing point	:	D° 0
Boiling point/boiling range	:	no data available
Flash point	:	Does not sustain combustion.
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Solubility(ies)		



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Water solubility	:	soluble	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity	:	no data available	
Explosive properties	:	no data available	
Oxidizing properties	:	no data available	
9.2 Other information no data available			
SECTION 10: Stability and reactivit	у		
10.1 Reactivity Stable under recommended storage	con	ditions.	
10.2 Chemical stability Stable under normal conditions.			
10.3 Possibility of hazardous reactions	5		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid	:	None known.	
10.5 Incompatible materials			
Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition produc Nitrogen oxides (NOx) Carbon dioxide (CO2) Carbon monoxide	ts		
SECTION 11: Toxicological information	atio	n	
11.1 Information on toxicological effec	ts		
Further information			
		Remarks: No data is available on the produ	- ()() (

- 12.1 Toxicity
 - Toxicity to fish



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Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
12.2 Persistence and degradability		
Biodegradability	: Result: no data available	
12.3 Bioaccumulative potential		
Bioaccumulation	: Remarks: no data available	
12.4 Mobility in soil		
Distribution among environmental compartments	: Remarks: no data available	
12.5 Results of PBT and vPvB assessi	nent	
Assessment	: This substance/mixture contain be either persistent, bioaccumu persistent and very bioaccumula higher.	lative and toxic (PBT), or very
12.6 Other adverse effects		
Additional ecological information	: No data is available on the proc	luct itself.
SECTION 13: Disposal consideration	ons	
13.1 Waste treatment methods		
Product	: Dispose of in accordance with I	ocal regulations.
Contaminated packaging	: Dispose of as unused product.	
SECTION 14: Transport informatio	1	
ΙΑΤΑ	Not dangerous goods	
14.1 UN number	: Not applicable	
14.2 Proper shipping name	: Not applicable	
14.3 Transport hazard class 14.4 Packing group	: Not applicable : Not applicable	
14.5 Environmental hazards	: no	

IMDG

14.1 14.2 14.3	UN number Proper shipping name Transport hazard class	Not applicableNot applicableNot applicable
14.4 14.5	Packing group Environmental hazards	: Not applicable : Not applicable : Marine pollutant: no

Not dangerous goods



according to Regulation (EC) No. 1907/2006

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Versior	2.0	Revision Date 12.12.2018	Print Date 10.03.2021
ADR		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
RID		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
DOT		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
TDG		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
14.6	Special precautions for user	: none	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture						
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable				
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable				
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable				



according to Regulation (EC) No. 1907/2006

GA-1000

/ersion 2.0	Re	vision Date 12.12.2018	Print Date 10.03.2021
Regulation (EC) No 10 ozone layer	005/2009 on substances	that deplete the : Not applica	ble
Regulation (EC) No 85	50/2004 on persistent org	ganic pollutants : Not applica	ble
	ls involving dangerous su	an Parliament and of the Counc ubstances. applicable	il on the control of
National regulatory in	formation		
Water contaminating c (Germany)		1 slightly hazardous to water sification according to AwSV, An	nex 1 (5.2)
5.2 Chemical safety ass	essment		
not required			
not required			
not required	mixture:	Classification pro	
not required SECTION 16: Other info Classification of the Resp. Sens. 1		Classification pro	
not required	mixture:	•	d
not required SECTION 16: Other info Classification of the Resp. Sens. 1	mixture: H334 H317	Calculation metho	b
not required SECTION 16: Other info Classification of the Resp. Sens. 1 Skin Sens. 1	mixture: H334 H317 ents	Calculation metho	b

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Further information

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value: MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified: NIOSH/Guide - National Institute of Safety and Health Guidebook: NO(A)EC - No

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Print Date 10.03.2021

Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

dd.mm.yyyy

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according to Regulation (EC) No. 1907/2006

HEGF 10UG/ML FOR USE IN EGM KIT

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
SECTION 1: Identification of the subst	tance/mixture and of the company/und	ertaking
1.1 Product identifier Product name :	HEGF 10UG/ML FOR USE IN EGM KIT	
1.2 Relevant identified uses of the substa Use of the Substance/Mixture :		
1.3 Details of the supplier of the safety da	ta sheet	
	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11	
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611	
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990	
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400	
E-mail address Responsible/issuing person	sds@lonza.com	
1.4 Emergency telephone number Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.





according to Regulation (EC) No. 1907/2006

HEGF 10UG/ML FOR USE IN EGM KIT

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.202
SECTION 3: Composition/informat	ion	on ingredients	
3.2 Mixtures			
Components			
Remarks	:	No hazardous ingredients	
SECTION 4: First aid measures			
4.1 Description of first aid measures			
If inhaled	:	No special precautions required.	
In case of skin contact	:	Wash with water and soap as a precau If skin irritation persists, call a physiciar	
In case of eye contact	:	Immediately flush eye(s) with plenty of If eye irritation persists, consult a speci	
If swallowed	:	Immediately give large quantities of wa Do not induce vomiting without medica Never give anything by mouth to an un	l advice.
4.2 Most important symptoms and effe	ects,	both acute and delayed	
Symptoms	:	No information available.	
1.3 Indication of any immediate media	- 1 of	tention and special treatment needed	
T.J mulcation of any infineutate medic	ai ai		
Treatment	ai ai :	No information available.	
-	:	-	
Treatment	:	-	
Treatment SECTION 5: Firefighting measures	:	-	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media	:	No information available. Water spray Dry powder Foam	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media	: : ubst	No information available. Water spray Dry powder Foam	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media 5.2 Special hazards arising from the s	: : ubst	No information available. Water spray Dry powder Foam	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media 5.2 Special hazards arising from the s Specific hazards during firefighting	: : ubst	No information available. Water spray Dry powder Foam ance or mixture Heating or fire can release toxic gas.	breathing apparatus.

Lonza

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

HEGF 10UG/ML FOR USE IN EGM KIT

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.202
SECTION 6: Accidental release mea	ISU	res	
6.1 Personal precautions, protective eq	luip	oment and emergency procedures	
Personal precautions	:	Use personal protective equipment.	
6.2 Environmental precautions			
Environmental precautions	:	Prevent product from entering drains.	
6.3 Methods and material for containme	ent	and cleaning up	
Methods for cleaning up	:	Contain spillage, and then collect with ne absorbent material, (e.g. sand, earth, dia vermiculite) and place in container for dia local / national regulations (see section 2	atomaceous earth, sposal according to
6.4 Reference to other sections			
6.4 Reference to other sections For personal protection see section 8	8.		
For personal protection see section 8	8.		
For personal protection see section 8	3.		
For personal protection see section 8 SECTION 7: Handling and storage 7.1 Precautions for safe handling	3.		
For personal protection see section 8 SECTION 7: Handling and storage	3. :	No special precautions required.	
SECTION 7: Handling and storage 7.1 Precautions for safe handling	:	No special precautions required. Take precautionary measures against st	atic discharges.
For personal protection see section 8 SECTION 7: Handling and storage 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and	:		
For personal protection see section 8 SECTION 7: Handling and storage 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion Hygiene measures	:	Take precautionary measures against st Handle in accordance with good industri practice.	-
For personal protection see section 8 SECTION 7: Handling and storage 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion	: : ng	Take precautionary measures against st Handle in accordance with good industri practice. any incompatibilities	-
For personal protection see section 8 SECTION 7: Handling and storage 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion Hygiene measures 7.2 Conditions for safe storage, includi Requirements for storage areas and	: : ng	Take precautionary measures against st Handle in accordance with good industri practice. any incompatibilities	-

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Avoid splashes.



according to Regulation (EC) No. 1907/2006

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Personal protective equipment		
Eye protection	: Tightly fitting safety goggles	
Hand protection		
Material	: Nitrile rubber	
Rate of permeability	: > 480 min	
Skin and body protection	: Choose body protection according to concentration of the dangerous subs No special protective equipment requ	tance at the work place.
Respiratory protection	: No personal respiratory protective ec required.	uipment normally

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	no data available
Odour	:	no data available
Odour Threshold	:	no data available
рН	:	no data available
Freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	does not flash
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	no data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	no data available



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Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity	:	no data available	
Explosive properties	:	no data available	
Oxidizing properties	:	no data available	
9.2 Other information			
no data available			
SECTION 10: Stability and react	ivity		
10.1 Reactivity		ditions	
Stable under recommended stora 10.2 Chemical stability	age cor		
Stable under normal conditions.			
10.3 Possibility of hazardous reacti	ons		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid	:	no data available	
10.5 Incompatible materials			
Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition pro	ducts		
No decomposition if stored norma	ally.		
SECTION 11: Toxicological info	rmatio	n	
11.1 Information on toxicological ef	ffects		
Further information			
		Remarks: No data is available on the produ	ict itself.
SECTION 12: Ecological information	ation		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Result: no data available	
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12.3 Bi	ioaccumulative potential		
Bi	oaccumulation	: Remarks: no data available	
12.4 M	obility in soil		
	stribution among environmental mpartments	: Remarks: no data available	
12.5 R	esults of PBT and vPvB assess	ment	
As	ssessment	: This substance/mixture contains no be either persistent, bioaccumulative persistent and very bioaccumulative higher.	e and toxic (PBT), or very
12.6 O	ther adverse effects		
Ac	dditional ecological information	: no data available	
	ION 13: Disposal consideration		
13 1 W			
Pr	aste treatment methods	: Dispose of in accordance with local	regulations.
Pr			regulations.
Pr SECT	oduct	n Not dangerous goods	regulations.
Pr SECTI IATA 14.1 14.2	oduct ION 14: Transport informatio UN number Proper shipping name	n Not dangerous goods : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3	oduct ION 14: Transport informatio UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2	oduct ION 14: Transport informatio UN number Proper shipping name	n Not dangerous goods : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4	Oduct ION 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1	Oduct ION 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : no Not dangerous goods : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Marine pollutant: no	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2	Oduct ION 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2 14.3	VN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not dangerous goods	regulations.
Pr SECTI IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2	Oduct ION 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	n Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	regulations.



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Versior	n 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
RID		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
DOT		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
TDG		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
14.6	Special precautions for user	: none	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament a	nd c	of the Council on the cont

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable



according to Regulation (EC) No. 1907/2006

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Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
National regulatory information		
Water contaminating class (Germany)	: WGK 1 slightly hazardous to water Classification according to AwSV, Ani	nex 1 (5.2)
15.2 Chemical safety assessment		
not required		

SECTION 16: Other information

Full text of H-Statements

Further information

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG -Dutch Threshold Limit Value; TGV - Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France: VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

dd.mm.yyyy



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according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021			
SECTION 1: Identification of the substance/mixture and of the company/undertaking					
1.1 Product identifier Product name :	BBE - BOVINE BRAIN EXTRACT 3mg/ml				
1.2 Relevant identified uses of the substar Use of the Substance/Mixture :	nce or mixture and uses advised against Scientific research and development				
1.3 Details of the supplier of the safety dat	ta sheet				
	Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11				
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611				
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990				
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400				
E-mail address Responsible/issuing person	sds@lonza.com				
1.4 Emergency telephone number Emergency telephone number :	Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)				

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Additional Labelling

EUH210 Safety data sheet available on request.



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0

Revision Date 12.12.2018

Print Date 10.03.2021

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. REACH Registration Number	Classification	Concentration (% w/w)
Streptomycin sulphate	3810-74-0	Acute Tox. 4; H302 Repr. 2; H361	>= 0,5 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled :	Move to fresh air. Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact :	After contact with skin, wash immediately with plenty of soap and water. Take off all contaminated clothing immediately. Call a physician immediately.
In case of eye contact :	Immediately flush eye(s) with plenty of water. Call a physician immediately.
If swallowed :	Immediately give plenty of water (if possible charcoal slurry). Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.
Most important symptoms and effects	, both acute and delayed
Symptoms :	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

: No information available.

4.2



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.202
SECTION 5: Firefighting measures			
5.1 Extinguishing media			
Suitable extinguishing media	:	Water spray	
		Dry powder Foam	
		1 Jan	
5.2 Special hazards arising from the su	ubsta	ance or mixture	
Specific hazards during firefighting	:	Heating or fire can release toxic gas.	
5.3 Advice for firefighters			
Special protective equipment for	:	In the event of fire, wear self-contained	d breathing apparatus.
firefighters			
Further information	:	Use water spray to cool unopened con	itainers.
		exposure to vapour of the product.	
6.2 Environmental precautions			
Environmental precautions	:	Do not flush into surface water or sanit	tary sewer system.
6.3 Methods and material for containm	ent	and cleaning up	
Methods for cleaning up	:	Contain spillage, and then collect with	
		absorbent material, (e.g. sand, earth, o	
		vermiculite) and place in container for local / national regulations (see section	
6.4 Reference to other sections			
For personal protection see section a	8.		
SECTION 7: Handling and storage			
7.1 Precautions for safe handling			
Advice on safe handling	:	In case of insufficient ventilation, wear	suitable respiratory
		equipment. Avoid exposure - obtain special instruct	tiona hoforo uso

Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin and eyes.

protection against fire and	:	Take precautionary measures against static discharges.

Advice on

explosion



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021				
	breathing dust or spray mist. Wash ha immediately after handling the product					
7.2 Conditions for safe storage, including any incompatibilities						
Requirements for storage areas and : No special storage conditions required. containers						
7.3 Specific end use(s)						

Specific use(s)

: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

	. ,			
Substance name	End Use	Exposure routes	Potential health effects	Value
Disodium hydrogen phosphate heptahydrate	Workers	Inhalation	Long-term systemic effects	4,07 mg/m3
	Consumers	Inhalation	Long-term systemic effects	3,04 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Disodium hydrogen phosphate heptahydrate	Fresh water	0,05 mg/l
	Marine water	0,005 mg/l
	Intermittent use/release	0,5 mg/l
	Sewage treatment plant	50 mg/l

8.2 Exposure controls

Engineering measures

Avoid splashes.

Personal protective equipment

Eye protection	: Tightly fitting safety goggles
Hand protection Material Rate of permeability	: Nitrile rubber : > 480 min
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place. Complete suit protecting against chemicals
Respiratory protection	: In the case of vapour formation use a respirator with an approved filter.



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

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Respirator with a vapour filter (EN 141) Respirator with ABEK filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	no data available
Odour	:	no data available
Odour Threshold	:	no data available
рН	:	no data available
Freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	does not flash
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	no data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity	:	no data available
Explosive properties	:	no data available
Oxidizing properties	:	no data available



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.202
9.2 Other information			
no data available			
SECTION 10: Stability and reactivity	ty		
10.1 Reactivity			
Stable under recommended storage	cor	ditions.	
10.2 Chemical stability Stable under normal conditions.			
10.3 Possibility of hazardous reaction	s		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid	:	no data available	
10.5 Incompatible materials			
Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition produ No decomposition if stored normally			
SECTION 11: Toxicological inform	atio	n	
-			
11.1 Information on toxicological effect	cts		
Further information			
		Remarks: No data is available on the prod	uct itself.
SECTION 12: Ecological information	on		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Result: no data available	
12.3 Bioaccumulative potential			
Bioaccumulation	:	Remarks: no data available	
12.4 Mobility in soil			
Distribution among environmental compartments	:	Remarks: no data available	
12.5 Results of PBT and vPvB assess	men	t	
Assessment	:	This substance/mixture contains no compo	onents considered to
Ref. / 00000028530		SDK EU/EN	Page 47 (7



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

		-	
Versior	n 2.0	Revision Date 12.12.2018	Print Date 10.03.202
		be either persistent, bioaccumulative persistent and very bioaccumulative higher.	
	ther adverse effects dditional ecological information	: no data available	
SECT	ION 13: Disposal consideration	ons	
13.1 W	aste treatment methods		
Pr	roduct	: Dispose of in accordance with local r	regulations.
Co	ontaminated packaging	: Dispose of as unused product.	
SECT	ION 14: Transport information	1	
ΙΑΤΑ		Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3 14.4	Transport hazard class Packing group	: Not applicable : Not applicable	
14.5	Environmental hazards	: no	
IMDG		Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3 14.4	Transport hazard class Packing group	: Not applicable : Not applicable	
14.5	Environmental hazards	: Marine pollutant: no	
ADR		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4 14.5	Packing group Environmental hazards	: Not applicable : no	
RID		: Not dangerous goods	
14.1	UN number	· Not applicable	
14.1	Proper shipping name	: Not applicable : Not applicable	
	Transport hazard class	: Not applicable	
14.3			
	Packing group Environmental hazards	: Not applicable	



according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Versio	n 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
DOT		: Not dangerous goods	
14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group	Not applicableNot applicableNot applicableNot applicable	
14.5 TDG	Environmental hazards	: no : Not dangerous goods	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	
14.6 14.7	Special precautions for user Transport in bulk according to Annex II of Marpol and the IBC Code	: none : Not applicable	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixt REACH - Restrictions on the manufacture, placing on the : Not applicable market and use of certain dangerous substances, preparations and articles (Annex XVII)	ure	
REACH - Candidate List of Substances of Very High Concern : Not applicable for Authorisation (Article 59).		
REACH - List of substances subject to authorisation (Annex : Not applicable XIV)		
Regulation (EC) No 1005/2009 on substances that deplete the : Not applicable ozone layer		
Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable		
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable		
National regulatory information		
Water contaminating class:WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)		
15.2 Chamical safety assessment		

15.2 Chemical safety assessment

not required

according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0

Revision Date 12.12.2018

Print Date 10.03.2021

SECTION 16: Other information

Full text of H-Statements

H302 H361 Harmful if swallowed.

Suspected of damaging fertility or the unborn child.

Further information

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV - Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG -Dutch Threshold Limit Value; TGV - Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

: dd.mm.yyyy

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according to Regulation (EC) No. 1907/2006

BBE - BOVINE BRAIN EXTRACT 3mg/ml

Version 2.0

Revision Date 12.12.2018

Print Date 10.03.2021

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021		
SECTION 1: Identification of the subs	SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1 Product identifier Product name :	Fetal Bovine Serum			
1.2 Relevant identified uses of the substa Use of the Substance/Mixture :				
1.3 Details of the supplier of the safety da Company	 Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11 Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611 Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990 Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400 			
E-mail address Responsible/issuing person 1.4 Emergency telephone number Emergency telephone number	 sds@lonza.com Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h) 			

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

/ersion 2.0	Revision Date 12.12.2018	Print Date 10.03.202
ECTION 2. Composition/informat	ion on ingradianta	
SECTION 3: Composition/informat	ion on ingredients	
3.2 Mixtures		
Components		
Remarks	: No hazardous ingredients	
SECTION 4: First aid measures		
I.1 Description of first aid measures		
If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a prec	aution.
	If skin irritation persists, call a physic	
In case of eye contact	: Immediately flush eye(s) with plenty	ofwator
in case of eye contact	If eye irritation persists, consult a spe	
If swallowed	: Immediately give large quantities of	water to drink
	Do not induce vomiting without medi	
	Never give anything by mouth to an	unconscious person.
.2 Most important symptoms and effe	ects, both acute and delayed	
Symptoms	: No information available.	
.3 Indication of any immediate medic	al attention and special treatment need	ed
Treatment	: No information available.	
SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media	: Water spray	
	Dry powder Foam	
5.2 Special hazards arising from the s	ubstance or mixture	
Specific hazards during firefighting	: Heating or fire can release toxic gas.	
5.3 Advice for firefighters		
_	: In the event of fire, wear self-contain	ed breathing apparatus.
Special protective equipment for firefighters		



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
SECTION 6: Accidental release meas	ures	
6.1 Personal precautions, protective equ	ipment and emergency procedures	
Personal precautions	Use personal protective equipment.	
6.2 Environmental precautions		
Environmental precautions	Prevent product from entering drains.	
6.3 Methods and material for containmer	t and cleaning up	
Methods for cleaning up	Contain spillage, and then collect with no absorbent material, (e.g. sand, earth, dia vermiculite) and place in container for dis local / national regulations (see section 1	tomaceous earth, sposal according to
6.4 Reference to other sections		
For personal protection see section 8.		
SECTION 7: Handling and storage		
7.1 Precautions for safe handling Advice on safe handling	No special precautions required.	
Advice on protection against fire and explosion		
Hygiene measures	Handle in accordance with good industria practice.	al hygiene and safety
7.2 Conditions for safe storage, including	g any incompatibilities	
Requirements for storage areas and containers	Keep tightly closed.	
	Store in cool place.	
7.3 Specific end use(s)		
Specific use(s)	No information available.	



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
SECTION 8: Exposure cont	rols/personal protection	
8.1 Control parameters		
Occupational Exposure L	imits	
Contains no substance	es with occupational exposure limit values.	
8.2 Exposure controls		
Engineering measures		
Avoid splashes.		
Personal protective equip	oment	

Eye protection	: Tightly fitting safety goggles
Hand protection Material Rate of permeability	 Nitrile rubber > 480 min
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place. No special protective equipment required.
Respiratory protection	: No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	brown
Odour	:	no data available
Odour Threshold	:	no data available
рН	:	6,8 - 8,3
Freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	does not flash
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

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Vapour pressure	:	no data available	
Relative vapour density	:	no data available	
Relative density	:	no data available	
Density	:	no data available	
Solubility(ies) Water solubility	:	soluble	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity	:	no data available	
Explosive properties	:	no data available	
Oxidizing properties	:	no data available	
9.2 Other information no data available			

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under normal conditions.

10.4 Conditions to avoid

Conditions to avoid : no data available

10.5 Incompatible materials Materials to avoid

: Strong oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Further information



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0		Revision Date 12.12.2018	Print Date 10.03.202
		Remarks: No data is available on the p	roduct itself.
SECTION 12: Ecological informati	on		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Result: no data available	
12.3 Bioaccumulative potential			
Bioaccumulation	:	Remarks: no data available	
12.4 Mobility in soil			
Distribution among environmental compartments	:	Remarks: no data available	
12.5 Results of PBT and vPvB assess	ment		
Assessment	:	This substance/mixture contains no con be either persistent, bioaccumulative a persistent and very bioaccumulative (vf higher.	nd toxic (PBT), or very
12.6 Other adverse effects			
Additional ecological information	:	no data available	

13.1 Waste treatment methods

Product

: Dispose of in accordance with local regulations.



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0

Revision Date 12.12.2018

Not dangerous goods

Print Date 10.03.2021

SECTION 14: Transport information

IATA

14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards		Not applicable Not applicable Not applicable Not applicable no
IMDG			Not dangerous goods
14.1 14.2 14.3 14.4 14.5 ADR	UN number Proper shipping name Transport hazard class Packing group Environmental hazards		Not applicable Not applicable Not applicable Not applicable Marine pollutant: no Not dangerous goods
14.1 14.2 14.3 14.4 14.5 RID	UN number Proper shipping name Transport hazard class Packing group Environmental hazards		Not applicable Not applicable Not applicable Not applicable no
14.1 14.2 14.3 14.4 14.5 DOT	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	:	Not applicable Not applicable Not applicable Not applicable no Not dangerous goods
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards		Not applicable Not applicable Not applicable Not applicable no



according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Versior	n 2.0	Revision Date 12.12.2018	Print Date 10.03.2021
TDG		: Not dangerous goods	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	
14.6	Special precautions for user	: none	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation sp	ec	ific for the substance or mixture
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)		Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

National regulatory information

Water contaminating class	:	WGK 1 slightly hazardous to water
(Germany)		

15.2 Chemical safety assessment

not required

SECTION 16: Other information

Full text of H-Statements

Further information

Full text of other abbreviations



Fetal Bovine Serum

Version 2.0

Revision Date 12.12.2018

Print Date 10.03.2021

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant: DIN - Standard of the German Institute for Standardisation: DNEL-Derived No Effect Level: DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV - Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide - National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail: STEL - Short-Term Exposure Limit: TDG - Transportation of Dangerous Goods: TGG -Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

dd.mm.yyyy

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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Fetal Bovine Serum

Version 2.0

Revision Date 12.12.2018

Print Date 10.03.2021

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Ascorbic Acid Solution

Version 2.0	Revision Date 12.12.2018	Print Date 10.03.2021			
SECTION 1: Identification of the substance/mixture and of the company/undertaking					
1.1 Product identifier Product name :	Ascorbic Acid Solution				
1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture : Scientific research and development					
1.3 Details of the supplier of the safety da Company	ata sheet ∶ Lonza Ltd				
	Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 11				
	Lonza Verviers Sprl Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611				
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 1990				
	Lonza Copenhagen ApS Strandhaven 12 DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400				
E-mail address Responsible/issuing person	sds@lonza.com				
1.4 Emergency telephone number Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerland Telephone: +41 61 313 94 94 (24h)				

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



according to Regulation (EC) No. 1907/2006

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SECTION 3: Composition/informa	ation on ingredients	
3.2 Mixtures		
Components		
Remarks	: No hazardous ingredients	
SECTION 4: First aid measures		
4.1 Description of first aid measures		
If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precau If skin irritation persists, call a physiciar	
In case of eye contact	: Immediately flush eye(s) with plenty of If eye irritation persists, consult a specia	
If swallowed	: Immediately give large quantities of war Do not induce vomiting without medical Never give anything by mouth to an une	advice.
4.2 Most important symptoms and ef	fects, both acute and delayed	
Symptoms	: No information available.	
4.3 Indication of any immediate medi	ical attention and special treatment needed	
4.3 Indication of any immediate medi Treatment	ical attention and special treatment needed : No information available.	
-	: No information available.	
Treatment	: No information available.	
Treatment SECTION 5: Firefighting measures	: No information available.	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media	 No information available. S Water spray Dry powder Foam 	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media 5.2 Special hazards arising from the s	 No information available. S Water spray Dry powder Foam 	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media 5.2 Special hazards arising from the s	 No information available. S Water spray Dry powder Foam Substance or mixture 	
Treatment SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing media 5.2 Special hazards arising from the s Specific hazards during firefighting	 No information available. S Water spray Dry powder Foam Substance or mixture 	breathing apparatus.



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SECTION 6: Accidental release mea	su	res	
6.1 Personal precautions, protective eq	uip	ment and emergency procedures	
Personal precautions	:	Use personal protective equipment.	
6.2 Environmental precautions			
Environmental precautions	:	Prevent product from entering drains.	
6.3 Methods and material for containme	ent	and cleaning up	
Methods for cleaning up	:	Contain spillage, and then collect with non-or absorbent material, (e.g. sand, earth, diaton vermiculite) and place in container for dispo local / national regulations (see section 13).	naceous earth,
6.4 Reference to other sections			
For personal protection see section 8	•		
SECTION 7: Handling and storage			
7.1 Precautions for safe handling			
Advice on safe handling	:	No special precautions required.	
Advice on protection against fire and explosion	:	Take precautionary measures against static	discharges.
Hygiene measures	:	Handle in accordance with good industrial h practice.	ygiene and safety
7.2 Conditions for safe storage, includi	ng	any incompatibilities	
Requirements for storage areas and containers	:	No special storage conditions required.	
7.3 Specific end use(s)			

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Avoid splashes.



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Personal protective equipment		
Eye protection	: Tightly fitting safety goggles	
Hand protection Material	: Nitrile rubber	
Rate of permeability	: > 480 min	
Skin and body protection	: Choose body protection according to concentration of the dangerous subst No special protective equipment requ	ance at the work place.
Respiratory protection	: No personal respiratory protective eq required.	uipment normally

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	no data available
Odour	:	no data available
Odour Threshold	:	no data available
рН	:	no data available
Freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	does not flash
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	no data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	no data available



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Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity	:	no data available	
Explosive properties	:	no data available	
Oxidizing properties	:	no data available	
9.2 Other information			
no data available			
SECTION 10: Stability and react	ivity		
10.1 Reactivity			
Stable under recommended stora	age cor	iditions.	
10.2 Chemical stability			
Stable under normal conditions.			
10.3 Possibility of hazardous reaction	ons		
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid		no data available	
	•		
10.5 Incompatible materials			
Materials to avoid	:	Strong oxidizing agents	
10.6 Hazardous decomposition pro	ducts		
No decomposition if stored norma	ally.		
SECTION 11: Toxicological infor	rmatio	n	
11.1 Information on toxicological ef	fects		
Further information			
		Remarks: No data is available on the product	t itself.
SECTION 12: Ecological information	ation		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Result: no data available	
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12.3 Bio	paccumulative potential			
Bio	accumulation	:	Remarks: no data available	
12.4 Mo	bility in soil			
	tribution among environmental	:	Remarks: no data available	
	npartments	•		
12.5 Re	sults of PBT and vPvB assess	ment		
Ass	sessment	:	This substance/mixture contains no control be either persistent, bioaccumulative persistent and very bioaccumulative (with higher.	and toxic (PBT), or very
12.6 Oth	ner adverse effects			
Ado	ditional ecological information	:	no data available	
SECTIO	ON 13: Disposal considerati	ons		
40.4 \				
13.1 wa	ste treatment methods			
Pro	oduct ON 14: Transport informatio	: on	Dispose of in accordance with local re	egulations.
Pro SECTIC	oduct DN 14: Transport informatio	: m	Not dangerous goods	egulations.
Pro SECTIC IATA 14.1	DN 14: Transport informatio	: n	Not dangerous goods : Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2	DN 14: Transport informatio UN number Proper shipping name	: n	Not dangerous goods : Not applicable : Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3	DN 14: Transport informatio DN 14: Transport informatio UN number Proper shipping name Transport hazard class	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2	DN 14: Transport informatio UN number Proper shipping name	: m	Not dangerous goods : Not applicable : Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4	DN 14: Transport informatio DN 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	: n	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG	DN 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group Environmental hazards	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable no Not dangerous goods	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5	DN 14: Transport informatio DN 14: Transport informatio UN number Proper shipping name Transport hazard class Packing group	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable no	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Mot applicable Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable Not applicable Not applicable Not applicable Mot applicable Mot applicable Marine pollutant: no	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2 14.3	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	egulations.
Pro SECTIC IATA 14.1 14.2 14.3 14.4 14.5 IMDG 14.1 14.2 14.3 14.4 14.5 ADR 14.1 14.2	UN number Proper shipping name Transport hazard class Packing group Environmental hazards UN number Proper shipping name Transport hazard class Packing group Environmental hazards	: m	Not dangerous goods Not applicable Not applicable Not applicable Not applicable Not applicable Not dangerous goods Not dangerous goods Not applicable	egulations.



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RID		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
DOT		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
TDG		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
14.6	Special precautions for user	: none	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable	

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and	nd c	of the Council on the cont

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable



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National regulatory information		
Water contaminating class (Germany)	: WGK 1 slightly hazardous to water Classification according to AwSV, Anne	ex 1 (5.2)
15.2 Chemical safety assessment not required		

SECTION 16: Other information

Full text of H-Statements

Further information

Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG -Dutch Threshold Limit Value; TGV - Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France: VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format

dd.mm.yyyy



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