

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**Reliant™ Gels SeaKem® Gold, TAE**

Version 2.0

Revision Date 07.12.2018

Print Date 24.03.2021

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name : Reliant™ Gel System  
Material number : 54801

**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 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 : sds@lonza.com  
Responsible/issuing person

**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.

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**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.

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**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Components**

Remarks : No hazardous ingredients

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**SECTION 4: First aid measures****4.1 Description of first aid measures**

- If inhaled : No special precautions required.
- 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 : Immediately flush eye(s) with plenty of water.  
If eye irritation persists, consult a specialist.
- If swallowed : If swallowed, do not induce vomiting - seek medical advice.  
Immediately give large quantities of water to drink.  
Never give anything by mouth to an unconscious person.

**4.2 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.

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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media : Dry powder  
Water spray  
Foam

**5.2 Special hazards arising from the substance 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 breathing apparatus.

Further information : Use water spray to cool unopened containers.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment 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 containment and cleaning up

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.

#### 6.4 Reference to other sections

For personal protection see section 8.

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### 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 : Avoid dust formation. Take precautionary measures against static discharges.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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

Requirements for storage areas and containers : Keep container closed when not in use. Do not freeze.

Other data : Store dry. Store flat.

#### 7.3 Specific end use(s)

Specific use(s) : No information available.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Countries not listed may have their own country specific values.

##### Occupational Exposure Limits

##### European Union

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	STEL	20 ppm 50 mg/m <sup>3</sup>	ECTLV

##### Switzerland

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Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TWA	10 ppm 25 mg/m <sup>3</sup>	SMAK
		STEL	20 ppm 50 mg/m <sup>3</sup>	SMAK

### Germany

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	MAK	10 ppm 25 mg/m <sup>3</sup>	DFG MAK
Peak-limit: excursion factor (category)		Peak-limit: excursion factor (category) 2		
			10 ppm 25 mg/m <sup>3</sup>	TRGS 900
Peak-limit: excursion factor (category)		Peak-limit: excursion factor (category) 2		

### Belgium

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	STEL	15 ppm 38 mg/m <sup>3</sup>	BE/OEL
		TWA	10 ppm 25 mg/m <sup>3</sup>	BE/OEL

### Denmark

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	GV	10 ppm 25 mg/m <sup>3</sup>	GV (DK)

### France

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	VLE	10 ppm 25 mg/m <sup>3</sup>	FVL

### Italy

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TWA	10 ppm 25 mg/m <sup>3</sup>	OEL (IT)
		STEL	20 ppm 50 mg/m <sup>3</sup>	OEL (IT)

### Netherlands

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TGG	25 mg/m <sup>3</sup>	NL OEL

### Spain

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	STEL	15 ppm 37 mg/m <sup>3</sup>	VLA
		TWA	10 ppm 25 mg/m <sup>3</sup>	VLA

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### Sweden

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TGV	10 ppm 25 mg/m <sup>3</sup>	SWO
		TWA	5 ppm 13 mg/m <sup>3</sup>	SWO

### United Kingdom

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Acetic acid	Workers	Inhalation	Short-term exposure, Local effects	25 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Consumers	Inhalation	Short-term exposure, Local effects	25 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term local effects	10 mg/m <sup>3</sup>

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

Substance name	Environmental Compartment	Value
Acetic acid	Fresh water sediment	11,36 mg/kg
	Sewage treatment plant	85 mg/l
	Soil	0,478 mg/kg
	Intermittent use/release	30,58 mg/l
	Fresh water	3,058 mg/l
	Marine water	0,3058 mg/l
	Marine sediment	1,136 mg/kg

## 8.2 Exposure controls

### Engineering measures

Use only in area provided with appropriate exhaust ventilation.

### Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection

Material : Nitrile rubber

Rate of permeability : > 480 min

Skin and body protection : 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 : gel

Colour : clear

Odour : odourless

Odour Threshold : no data available

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pH	:	no data available
Melting point/freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	no data available Water
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)		
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

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## 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

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Materials to avoid : Strong oxidizing agents  
Acids and bases

**10.6 Hazardous decomposition products**

No decomposition if stored normally.

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

Information on likely routes of exposure : Eyes  
Skin

**Further information**

Remarks: No data is available on the product itself.  
Health injuries are not known or expected under normal use.

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**SECTION 12: Ecological information****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 assessment**

Assessment : 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.

**12.6 Other adverse effects**

Additional ecological information : no data available

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Product : Contact waste disposal services.  
Dispose of in accordance with local regulations.

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### SECTION 14: Transport information

**IATA** 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

**IMDG** 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 : 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 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



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**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

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### 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 of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

#### National regulatory information

Water contaminating class (Germany) : nwg not water endangering  
Classification according to AwSV, Annex 1 (2.2)

#### 15.2 Chemical safety assessment

not required

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### SECTION 16: Other information

#### Further information

Other information : SeaKem is a registered trademark of FMC Corp

#### Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -

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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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