

Date : 15/08/2019

Version : 1

SAFETY DATA SHEET

Luminex

xTAG® Cystic Fibrosis (CFTR) 60 kit v2, xTAG® Cystic Fibrosis (CFTR) 71 kit v2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : xTAG® Cystic Fibrosis (CFTR) 60 kit v2, xTAG® Cystic Fibrosis (CFTR) 71 kit v2

Product code :

Product description : Not available.

Component name :

- Component 1** xTAG® CFTR PCR Mix v2
- Component 2** xTAG® CFTR Bead Mix A v2
- Component 3** xTAG® CFTR Bead Mix B v2
- Component 4** xTAG® CFTR ASPE Mix A v2
- Component 5** xTAG® CFTR ASPE Mix B v2
- Component 6** xTAG® Reporter Buffer
- Component 7** Platinum Tfi Exo(-) DNA Polymerase
- Component 8** Platinum Tfi Reaction Buffer, 5x
- Component 9** Tfi 50mM MgCl₂
- Component 10** xTAG® Shrimp Alkaline Phosphatase
- Component 11** xTAG® Exonuclease I
- Component 12** xTAG® Streptavidin, R-Phycoerythrin Conjugate

Product type : Liquid.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : For Professional use only. Use as per Product Insert.

1.3 Details of the supplier of the safety data sheet

Supplier's details : Luminex Molecular Diagnostics, Inc.
439 University Avenue
Toronto, Ontario
Canada M5G 1Y8
Tel: 1-512-381-4397
Toll free: 1-877-785-2323 (US and Canada)
Fax: 1-512-219-5114

e-mail address of person responsible for this SDS : Support@Luminexcorp.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number :

Emergency telephone number (with hours of operation) : 1-512-381-4397
24/7



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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Component 8

Skin Irrit. 2, H315

Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

GHS label elements for the kit

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 - Causes serious eye irritation.
H315 - Causes skin irritation.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
P264 - Wash hands thoroughly after handling.

Response : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

Disposal : Not applicable.

GHS label elements by component

Hazard pictograms : **Component 8**



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SECTION 2: Hazards identification

Signal word	: Component 1	No signal word.
	Component 2	No signal word.
	Component 3	No signal word.
	Component 4	No signal word.
	Component 5	No signal word.
	Component 6	No signal word.
	Component 7	No signal word.
	Component 8	Warning
	Component 9	No signal word.
	Component 10	No signal word.
	Component 11	No signal word.
	Component 12	No signal word.
Hazard statements	: Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	H319 - Causes serious eye irritation. H315 - Causes skin irritation.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: Component 1	Not applicable.
	Component 2	Not applicable.
	Component 3	Not applicable.
	Component 4	Not applicable.
	Component 5	Not applicable.
	Component 6	Not applicable.
	Component 7	Not applicable.
	Component 8	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling.
	Component 9	Not applicable.
	Component 10	Not applicable.
	Component 11	Not applicable.
	Component 12	Not applicable.
Response	: Component 1	Not applicable.
	Component 2	Not applicable.
	Component 3	Not applicable.
	Component 4	Not applicable.
	Component 5	Not applicable.
	Component 6	Not applicable.
	Component 7	Not applicable.
	Component 8	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Component 9	Not applicable.
	Component 10	Not applicable.
	Component 11	Not applicable.
	Component 12	Not applicable.

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SECTION 2: Hazards identification

Storage : **Component 1** Not applicable.
Component 2 Not applicable.
Component 3 Not applicable.
Component 4 Not applicable.
Component 5 Not applicable.
Component 6 Not applicable.
Component 7 Not applicable.
Component 8 Not applicable.
Component 9 Not applicable.
Component 10 Not applicable.
Component 11 Not applicable.
Component 12 Not applicable.

Disposal : **Component 1** Not applicable.
Component 2 Not applicable.
Component 3 Not applicable.
Component 4 Not applicable.
Component 5 Not applicable.
Component 6 Not applicable.
Component 7 Not applicable.
Component 8 Not applicable.
Component 9 Not applicable.
Component 10 Not applicable.
Component 11 Not applicable.
Component 12 Not applicable.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture



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SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Component 7 Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Component 8 Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Potassium hydroxide	REACH #: Annex V EC: 215-181-3 CAS: 1310-58-3 Index: 019-002-00-8	≥1 - <2	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318	[1] [2]
Component 10 Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
Component 11 Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified. See Section 16 for the full text of the H statements declared above.	[2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Not applicable.
- Skin contact** : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Not applicable.
- Protection of first-aiders** : No special measures required.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

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SECTION 4: First aid measures

Eye contact	: Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	Causes serious eye irritation.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
Inhalation	: Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	No known significant effects or critical hazards.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
Skin contact	: Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	Irritating to skin.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
Ingestion	: Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	No known significant effects or critical hazards.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
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SECTION 4: First aid measures

- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No known significant effects or critical hazards.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : None identified.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : No specific fire or explosion hazard.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: No special requirements.

6.3 Methods and material for containment and cleaning up

- Spill** : Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.



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SECTION 6: Accidental release measures

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.
Component 1-11: Store at -25°C to -15°C.
Component 12: Store at 2°C to 6°C.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Component 7 Glycerol	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Mist
Component 8 Glycerol Potassium hydroxide	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Mist EH40/2005 WELs (United Kingdom (UK), 8/2018). STEL: 2 mg/m ³ 15 minutes.
Component 10 Glycerol	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Mist
Component 11 Glycerol	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Mist



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SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Component 8 Potassium hydroxide	DNEL	Long term Inhalation	1 mg/m ³	General population Workers	Local
	DNEL	Long term Inhalation	1 mg/m ³		Local

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : No special ventilation requirements.

Individual protection measures

Hygiene measures : Follow good industrial hygiene practice.

Eye/face protection : Not required under normal conditions of use.

Skin protection

Hand protection : Not required under normal conditions of use.

Body protection : Not required under normal conditions of use.

Other skin protection : Not required under normal conditions of use.

Respiratory protection : Not required under normal conditions of use.

Environmental exposure controls : No special measures required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : **Component 1** Liquid.
Component 2 Liquid.
Component 3 Liquid.
Component 4 Liquid.
Component 5 Liquid.
Component 6 Liquid.
Component 7 Liquid.
Component 8 Liquid.
Component 9 Liquid.
Component 10 Liquid. [Clear. Viscous.]
Component 11 Liquid. [Clear. Viscous.]



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SECTION 9: Physical and chemical properties

	Component 12	Liquid.
Colour	: Component 1	Colourless.
	Component 2	Colourless.
	Component 3	Colourless.
	Component 4	Colourless.
	Component 5	Colourless.
	Component 6	Colourless.
	Component 7	Colourless.
	Component 8	Colourless.
	Component 9	Colourless.
	Component 10	Colourless.
	Component 11	Colourless.
	Component 12	Pink. [Light]
Odour	: Component 1	Odourless.
	Component 2	Odourless.
	Component 3	Odourless.
	Component 4	Odourless.
	Component 5	Odourless.
	Component 6	Odourless.
	Component 7	Odourless.
	Component 8	Odourless.
	Component 9	Odourless.
	Component 10	Odourless.
	Component 11	Odourless.
	Component 12	Odourless.
Odour threshold	: Not available.	
pH	: Component 1	Not available.
	Component 2	Not available.
	Component 3	Not available.
	Component 4	Not available.
	Component 5	Not available.
	Component 6	Not available.
	Component 7	Not available.
	Component 8	6 to 8
	Component 9	Not available.
	Component 10	Not available.
	Component 11	Not available.
	Component 12	Not available.
Melting point/freezing point	: Not available.	
Initial boiling point and boiling range	: Component 1	Not available.
	Component 2	Not available.
	Component 3	Not available.
	Component 4	Not available.
	Component 5	Not available.
	Component 6	Not available.
	Component 7	Not available.
	Component 8	Not available.
	Component 9	Not available.
	Component 10	Not available.
	Component 11	Not available.
	Component 12	Not available.

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SECTION 9: Physical and chemical properties

Flash point	:	Component 1	Not available.
		Component 2	Not available.
		Component 3	Not available.
		Component 4	Not available.
		Component 5	Not available.
		Component 6	Not available.
		Component 7	Not available.
		Component 8	Not available.
		Component 9	Not available.
		Component 10	Not available.
		Component 11	Not available.
		Component 12	Not available.
Evaporation rate	:		Not available.
Flammability (solid, gas)	:		Not available.
Upper/lower flammability or explosive limits	:		Not available.
Vapour pressure	:	Component 1	Not available.
		Component 2	Not available.
		Component 3	Not available.
		Component 4	Not available.
		Component 5	Not available.
		Component 6	Not available.
		Component 7	Not available.
		Component 8	Not available.
		Component 9	Not available.
		Component 10	Not available.
		Component 11	Not available.
		Component 12	Not available.
Vapour density	:	Component 1	Not available.
		Component 2	Not available.
		Component 3	Not available.
		Component 4	Not available.
		Component 5	Not available.
		Component 6	Not available.
		Component 7	Not available.
		Component 8	Not available.
		Component 9	Not available.
		Component 10	Not available.
		Component 11	Not available.
		Component 12	Not available.
Relative density	:	Component 1	Not available.
		Component 2	Not available.
		Component 3	Not available.
		Component 4	Not available.
		Component 5	Not available.
		Component 6	Not available.
		Component 7	Not available.
		Component 8	Not available.
		Component 9	Not available.
		Component 10	Not available.
		Component 11	Not available.
		Component 12	Not available.

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SECTION 9: Physical and chemical properties

Solubility(ies) : **Component 1** Not available.
Component 2 Not available.
Component 3 Not available.
Component 4 Not available.
Component 5 Not available.
Component 6 Not available.
Component 7 Not available.
Component 8 Not available.
Component 9 Not available.
Component 10 Not available.
Component 11 Not available.
Component 12 Not available.

Partition coefficient: n-octanol/ water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : **Component 1** Not available.
Component 2 Not available.
Component 3 Not available.
Component 4 Not available.
Component 5 Not available.
Component 6 Not available.
Component 7 Not available.
Component 8 Not available.
Component 9 Not available.
Component 10 Not available.
Component 11 Not available.
Component 12 Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : **Component 1** The product is stable.
Component 2 The product is stable.
Component 3 The product is stable.
Component 4 The product is stable.
Component 5 The product is stable.
Component 6 The product is stable.
Component 7 The product is stable.
Component 8 The product is stable.
Component 9 The product is stable.
Component 10 The product is stable.
Component 11 The product is stable.
Component 12 The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.



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SECTION 10: Stability and reactivity

- 10.4 Conditions to avoid** :
- | | |
|---------------------|-------------------|
| Component 1 | No specific data. |
| Component 2 | No specific data. |
| Component 3 | No specific data. |
| Component 4 | No specific data. |
| Component 5 | No specific data. |
| Component 6 | No specific data. |
| Component 7 | No specific data. |
| Component 8 | No specific data. |
| Component 9 | No specific data. |
| Component 10 | No specific data. |
| Component 11 | No specific data. |
| Component 12 | No specific data. |
- 10.5 Incompatible materials** :
- | | |
|---------------------|---|
| Component 1 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 2 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 3 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 4 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 5 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 6 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 7 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 8 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 9 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 10 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 11 | Reactive or incompatible with the following materials: oxidising materials. |
| Component 12 | Reactive or incompatible with the following materials: oxidising materials. |
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

There is no data available.

Acute toxicity estimates

Route	ATE value
Component 8 Oral	33333.33 mg/kg

Irritation/Corrosion



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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Component 8 Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 mg	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 mg	-

Sensitisation

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact	Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	Causes serious eye irritation.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
Inhalation	Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	No known significant effects or critical hazards.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.



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SECTION 11: Toxicological information

Skin contact	Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	Irritating to skin.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.
Ingestion	Component 1	No known significant effects or critical hazards.
	Component 2	No known significant effects or critical hazards.
	Component 3	No known significant effects or critical hazards.
	Component 4	No known significant effects or critical hazards.
	Component 5	No known significant effects or critical hazards.
	Component 6	No known significant effects or critical hazards.
	Component 7	No known significant effects or critical hazards.
	Component 8	No known significant effects or critical hazards.
	Component 9	No known significant effects or critical hazards.
	Component 10	No known significant effects or critical hazards.
	Component 11	No known significant effects or critical hazards.
	Component 12	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No known significant effects or critical hazards.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

Potential chronic health effects

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.



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SECTION 11: Toxicological information

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Component 8 Potassium hydroxide	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

12.2 Persistence and degradability

There is no data available.

12.3 Bioaccumulative potential

There is no data available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. No specific disposal consideration.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.



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SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.
**on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles**

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.



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SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Component 8 Skin Irrit. 2, H315 Eye Irrit. 2, H319	Calculation method Calculation method

Full text of abbreviated H statements

Component 8 H290 H302 H314 H315 H318 H319	May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation.
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Full text of classifications [CLP/GHS]

Component 8 Acute Tox. 4, H302 Eye Dam. 1, H318 Eye Irrit. 2, H319 Met. Corr. 1, H290 Skin Corr. 1A, H314 Skin Irrit. 2, H315	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 CORROSIVE TO METALS - Category 1 SKIN CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 2
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