SAFETY DATA SHEET

xTAG® Cystic Fibrosis (CFTR) 39 kit v2

Section 1. Identification

GHS product identifier : xTAG® Cystic Fibrosis (CFTR) 39 kit v2

Other means of identification :

Component 1	xTAG® CFTR PCR Primer Mix v2
Component 2	xTAG® CFTR Bead Mix A v2
Component 3	xTAG® CFTR ASPE Primer Mix A v2
Component 4	xTAG® Reporter Buffer
Component 5	Platinum® Tfi Exo(-) DNA Polymerase
Component 6	Platinum® Tfi Reaction Buffer, 5X
Component 7	Tfi 50 mM $MgCl_2$
Component 8	xTAG® Shrimp Alkaline Phosphatase
Component 9	xTAG® Exonuclease I
Component 10	xTAG® Streptavidin, R-Phycoerythrin Conjugate

Product type : Liquid.

Code : I027C0231, I027C0232

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

Supplier/Manufacturer :
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

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

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

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.

Section 2. Hazards identification

Response : P302 + P352 + P362 + P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage : Not applicable.

Disposal : Not applicable.

GHS label elements by component

Hazard pictograms : **Component 6**

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	Warning
Component 7	No signal word.
Component 8	No signal word.
Component 9	No signal word.
Component 10	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	H319 - Causes serious eye irritation. H315 - Causes skin irritation.
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.

Precautionary statements

Prevention :

Component 1	Not applicable.
Component 2	Not applicable.
Component 3	Not applicable.
Component 4	Not applicable.
Component 5	Not applicable.
Component 6	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling.
Component 7	Not applicable.
Component 8	Not applicable.
Component 9	Not applicable.
Component 10	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	P302 + P352 + P362 + P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. P332 + P313 - If skin irritation occurs: Get medical attention.

Section 2. Hazards identification

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Component 7 Not applicable.
Component 8 Not applicable.
Component 9 Not applicable.
Component 10 Not applicable.

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.

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.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	%	CAS number
Component 5		
Glycerol	10 - 30	56-81-5
Component 6		
Glycerol	10 - 30	56-81-5
Potassium hydroxide	1 - 5	1310-58-3
Component 8		
Glycerol	60 - 80	56-81-5
Component 9		
Glycerol	30 - 60	56-81-5

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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 and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary 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 : Not applicable.

Ingestion : Not applicable.

Most important symptoms/effects, acute and delayed

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	Causes serious eye irritation.
	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.
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.
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	Causes skin irritation.
	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.
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.

Over-exposure signs/symptoms

Section 4. First aid measures

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.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : None identified.

Specific treatments : No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Put on appropriate personal protective equipment.

For emergency responders : If specialized 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".

Environmental precautions : No special requirements.

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

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.

Section 7. Handling and storage

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.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations.
Component 1-9: Store at -25˚C to -15˚C.
Component 10: Store at 2˚C to 6˚C.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
Component 5 Glycerol	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Component 6 Glycerol	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Potassium hydroxide	**ACGIH TLV (United States, 3/2018).** C: 2 mg/m³ **NIOSH REL (United States, 10/2016).** CEIL: 2 mg/m³ 10 hours.
Component 8 Glycerol	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Component 9 Glycerol	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust

Canada

Occupational exposure limits

Ingredient name	Exposure limits
Component 5 Glycerol	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist **CA British Columbia Provincial (Canada, 7/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist TWA: 3 mg/m³ 8 hours. Form: Respirable mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Mist **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. Form: Mist TWA: 10 mg/m³ 8 hours. Form: Mist **CA Ontario Provincial (Canada, 1/2018).**

Section 8. Exposure controls/personal protection

	TWA: 10 mg/m³ 8 hours. Form: Mist
Component 6 Glycerol	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist **CA British Columbia Provincial (Canada, 7/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist TWA: 3 mg/m³ 8 hours. Form: Respirable mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Mist **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. Form: Mist TWA: 10 mg/m³ 8 hours. Form: Mist **CA Ontario Provincial (Canada, 1/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist
Potassium hydroxide	**CA Alberta Provincial (Canada, 6/2018).** C: 2 mg/m³ **CA British Columbia Provincial (Canada, 7/2018).** C: 2 mg/m³ **CA Ontario Provincial (Canada, 1/2018).** C: 2 mg/m³ **CA Quebec Provincial (Canada, 1/2014).** STEV: 2 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** CEIL: 2 mg/m³
Component 8 Glycerol	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist **CA British Columbia Provincial (Canada, 7/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist TWA: 3 mg/m³ 8 hours. Form: Respirable mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Mist **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. Form: Mist TWA: 10 mg/m³ 8 hours. Form: Mist **CA Ontario Provincial (Canada, 1/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist
Component 9 Glycerol	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist **CA British Columbia Provincial (Canada, 7/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist TWA: 3 mg/m³ 8 hours. Form: Respirable mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Mist **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. Form: Mist TWA: 10 mg/m³ 8 hours. Form: Mist **CA Ontario Provincial (Canada, 1/2018).** TWA: 10 mg/m³ 8 hours. Form: Mist

Appropriate engineering controls : No special ventilation requirements.

Environmental exposure controls : No special measures required.

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.

Section 8. Exposure controls/personal protection

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

Respiratory protection : Not required under normal conditions of use.

Section 9. Physical and chemical properties

Appearance

Physical state :

Component 1	Liquid. [Clear.]
Component 2	Liquid. [Clear.]
Component 3	Liquid. [Clear.]
Component 4	Liquid. [Clear.]
Component 5	Liquid. [Clear.]
Component 6	Liquid. [Clear.]
Component 7	Liquid. [Clear.]
Component 8	Liquid. [Clear./Viscous.]
Component 9	Liquid. [Clear./Viscous.]
Component 10	Liquid. [Clear.]

Color :

Component 1	Colorless.
Component 2	Colorless.
Component 3	Colorless.
Component 4	Colorless.
Component 5	Colorless.
Component 6	Colorless.
Component 7	Colorless.
Component 8	Colorless.
Component 9	Colorless.
Component 10	Pink. [Light]

Odor :

Component 1	Odorless.
Component 2	Odorless.
Component 3	Odorless.
Component 4	Odorless.
Component 5	Odorless.
Component 6	Odorless.
Component 7	Odorless.
Component 8	Odorless.
Component 9	Odorless.
Component 10	Odorless.

Odor 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	6 to 8 [Conc. (% w/w): 100%]
Component 7	Not available.
Component 8	6 to 8 [Conc. (% w/w): 100%]
Component 9	Not available.
Component 10	Not available.

Melting point : Not available.

Section 9. Physical and chemical properties

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.
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.
Evaporation rate	:	Not available.	
Flammability (solid, gas)	:	Not available.	
Lower and upper explosive (flammable) limits	:	Not available.	
Vapor 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.
Vapor 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.
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.

Section 9. Physical and chemical properties

Solubility :

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	Easily soluble in the following materials: cold water and hot water.
Component 9	Easily soluble in the following materials: cold water and hot water.
Component 10	Easily soluble in the following materials: cold water and hot water.

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.

Flow time (ISO 2431) : Not available.

Section 10. Stability and reactivity

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

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.

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

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.

Section 10. Stability and reactivity

Component 10 No specific data.

Incompatible materials :

Component 1	Reactive or incompatible with the following materials: oxidizing materials.
Component 2	Reactive or incompatible with the following materials: oxidizing materials.
Component 3	Reactive or incompatible with the following materials: oxidizing materials.
Component 4	Reactive or incompatible with the following materials: oxidizing materials.
Component 5	Reactive or incompatible with the following materials: oxidizing materials.
Component 6	Reactive or incompatible with the following materials: oxidizing materials.
Component 7	Reactive or incompatible with the following materials: oxidizing materials.
Component 8	Reactive or incompatible with the following materials: oxidizing materials.
Component 9	Reactive or incompatible with the following materials: oxidizing materials.
Component 10	Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Component 5 Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Component 6 Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Component 8 Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Component 9 Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Component 6 Potassium hydroxide	Eyes - Moderate irritant Skin - Severe irritant Skin - Severe irritant	Rabbit Guinea pig Rabbit	- - -	24 hours 1 mg 24 hours 50 mg 24 hours 50 mg	- - -

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Section 11. Toxicological information

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 the 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	Causes serious eye irritation.
	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.
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.
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	Causes skin irritation.
	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.
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.

Section 11. Toxicological information

Component 10 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 and also 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.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Component 6 Oral	33333.33 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Component 6 Potassium hydroxide	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Component 5 Glycerol	-1.76	-	low
Component 6 Glycerol	-1.76	-	low
Component 8 Glycerol	-1.76	-	low
Component 9 Glycerol	-1.76	-	low

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. No specific disposal consideration.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG : Not applicable.

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

U.S. Federal regulations : **TSCA 8(a) PAIR**: All components are listed or exempted.
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): Not determined.
TSCA 12(b) one-time export: None of the components are listed.
TSCA 12(b) annual export notification: None of the components are listed.
Clean Water Act (CWA) 307: None of the components are listed.
Clean Water Act (CWA) 311: Potassium hydroxide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

Composition/information on ingredients

Name	Classification
Component 6 Potassium hydroxide	CORROSIVE TO METALS - Category 1 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 1A SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SARA 313

There is no data available.

State regulations

Massachusetts : The following components are listed: Glycerol; Potassium hydroxide

New York : The following components are listed: Potassium hydroxide

New Jersey : The following components are listed: Glycerol; Potassium hydroxide

Pennsylvania : The following components are listed: Glycerol; Potassium hydroxide

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

Canadian lists

Canada inventory (DSL NDSL) : Not determined.

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Section 15. Regulatory information

Chemical Weapon Convention List Schedules I, II & III Chemicals

Ingredient name	List name	Status
Not listed.		

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Component 6 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	 Calculation method Calculation method

History

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Prepared by : KMK Regulatory Services Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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