SAFETY DATA SHEET



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

71 kit v2

Section 1. Identification

| GHS product identifier | : xTAG [®] Cystic Fibrosis (CFTR) 60 kit v2, xTAG® Cystic Fibrosis (CFTR) 71 kit v2 |
|--------------------------|--|
| Other means of | : Component 1 xTAG [®] CFTR PCR Mix v2 |
| identification | 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 9Tfi 50mM MgCl2Component 10xTAG [®] Shrimp Alkaline Phosphatase |
| | Component 11 xTAG [®] Exonuclease I |
| | Component 12 xTAG [®] Streptavidin, R-Phycoerythrin Conjugate |
| Broduct type | |
| Product type | : Liquid. |
| Code | |
| | |
| Identified uses | : For Professional use only. Use as per Product Insert. |
| Supplier/Manufacturer | : Luminex Molecular Diagnostics, Inc. |
| cappionianaianaian | 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 | : Support@Luminexcorp.com |
| responsible for this SDS | |
| Emergency telephone | : 1-512-381-4397 |
| number (with hours of | 24/7 |
| operation) | |

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 k | |
| Hazard pictograms | |
| Signal word | : Warning |
| Hazard statements | : H319 - Causes serious eye irritation. H315 - Causes skin irritation. |
| Precautionary statements | |
| | |



Section 2. Hazards identification

| P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling. | |
|---|--|
| 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. | |
| : Not applicable. | |
| : Not applicable. | |
| ponent | |
| : Component 8 | |
| | |
| : 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. | |
| Component 12 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. No known significant effects or critical hazards. | |
| | |
| 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. | |
| | |



Section 2. Hazards identification

| 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 | 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. |
| | Component 9 | Not applicable. |
| | Component 10 | Not applicable. |
| | Component 11 | Not applicable. |
| | Component 12 | 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. |
| | 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. |
| azards not otherwise lassified | Component 12 : None known. | Not applicable. |

Section 3. Composition/information on ingredients

Substance/mixture Other means of

identification

: Mixture

: Not available.

Document No. :

Ingredient name%CAS numberComponent 8
Potassium hydroxide1 - 51310-58-3



Section 3. Composition/information on ingredients

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 necess | ary 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. |

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 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. No known significant effects or critical hazards. Component 5 **Component 6** No known significant effects or critical hazards. No known significant effects or critical hazards. Component 7 No known significant effects or critical hazards. **Component 8 Component 9** No known significant effects or critical hazards. No known significant effects or critical hazards. Component 10 **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. No known significant effects or critical hazards. Component 7 **Component 8** Causes skin irritation. No known significant effects or critical hazards. Component 9



Section 4. First aid measures

| | 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 |
|--------------|--|
| 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

| | 5/16 |
|---|---|
| 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. |
| 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. |
| Hazardous thermal decomposition products | : Decomposition products may include the following materials: carbon dioxide carbon monoxide |
| Specific hazards arising from the chemical | : No specific fire or explosion hazard. |
| Unsuitable extinguishing media | : None known. |
| Suitable extinguishing media | : Use an extinguishing agent suitable for the surrounding fire. |
| Extinguishing media | |

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 | | |
| 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 Advice on general occupational hygiene | : | Put on appropriate personal protective equipment (see Section 8). 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 1-11: Store at -25°C to -15°C. Component 12: 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 8 Potassium hydroxide | ACGIH TLV (United States, 3/2018). C: 2 mg/m ³ NIOSH REL (United States, 10/2016). CEIL: 2 mg/m ³ 10 hours. |

Canada

Occupational exposure limits

| Ingredient name | Exposure limits |
|------------------------------------|--|
| Component 8 Potassium hydroxide | CA Alberta Provincial (Canada, 6/2018). C: 2 mg/m ³ CA British Columbia Provincial (Canada, 7/2018). C: 2 mg/m ³ CA Ontario Provincial (Canada, 1/2018). C: 2 mg/m ³ CA Quebec Provincial (Canada, 1/2014). STEV: 2 mg/m ³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). CEIL: 2 mg/m ³ |

Appropriate engineering controls

: No special ventilation requirements.



Section 8. Exposure controls/personal protection

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. |
| 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

| Diversional activity | • | 11 |
|----------------------|----------------------------|---------------------------|
| Physical state | Component 1 | Liquid. |
| | Component 2 | Liquid. |
| | Component 3 | Liquid. |
| | Component 4 | Liquid. |
| | Component 5 | Liquid. |
| | Component 6 Component 7 | Liquid. Liquid. |
| | Component 8 | Liquid. |
| | Component 9 | Liquid. |
| | Component 10 | Liquid. [Clear. Viscous.] |
| | Component 11 | Liquid. [Clear. Viscous.] |
| | Component 12 | Liquid. |
| 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 | Colorless. |
| | Component 11 | Colorless. |
| | Component 12 | 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. |
| | Component 11 | Odorless. |
| | Component 12 | Odorless. |
| Odor threshold | Not available. | |
| | | |

Section 9. Physical and chemical properties

| рН | 1 | 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 | ; | Not available. | |
| Initial boiling point and | 4 | Component 1 | Not available. |
| boiling range | | 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. |
| Flash point | ÷ | Component 1 | Not available. |
| | | Component 2 | Not available. |
| | | Component 3 | Not available. |
| | | Component 4 | Not available. |
| | | Component 5 Component 6 | Not available. 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. | |
| 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. |
| | | Component 11 | Not available. |
| | | Component 12 | Not available. |
| | | | |



Section 9. Physical and chemical properties

| | | | ,ai | proper |
|--|----|----------------|-----|------------|
| 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 | | 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. |
| 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 | Not | available. |
| | | Component 9 | Not | available. |
| | | Component 10 | | available. |
| | | Component 11 | | available. |
| | | Component 12 | Not | available. |
| Partition coefficient: n- octanol/water | : | Not available. | | |
| Auto-ignition temperature | ÷ | Not available. | | |
| | ÷ | Not available. | | |
| Viscosity | | Component 1 | Not | available. |
| VISCOSILY | 1 | Component 2 | | available. |
| | | Component 3 | | available. |
| | | Component 4 | | available. |
| | | Component 5 | | available. |
| | | Component 6 | | available. |
| | | Component 7 | | available. |
| | | Component 8 | | available. |
| | | Component 9 | | available. |
| | | Component 10 | | available. |
| | | Component 11 | | available. |
| | | Component 12 | Not | available. |
| Flow time (ISO 2431) | ÷ | Not available. | | |
| | ٢. | | | |



Document No. :

Section 10. Stability and reactivity

Reactivity

reactions

: 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. |
| | Component 11 | The product is stable. |
| | Component 12 | The product is stable. |
| | | |

Possibility of hazardous : 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. |
| | Component 10 | No specific data. |
| | Component 11 | No specific data. |
| | Component 12 | 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
- Component 9Reactive of incompatible with the following materials: oxidizing
materials.Component 10Reactive or incompatible with the following materials: oxidizing
- Component 11materials.Component 11Reactive or incompatible with the following materials: oxidizing
materials.Component 12Reactive or incompatible with the following materials: oxidizing
 - nent 12 Reactive or incompatible with the following materials: oxidizing materials.



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Section 10. Stability and reactivity

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

There is no data available.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|------------------------------------|--|--------------------------------|-------------|---|-------------|
| Component 8 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.

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 : Dermal contact. Eye contact. Inhalation. Ingestion.

routes of exposure

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. |



Section 11. Toxicological information

| | • | |
|----------------|--------------|---|
| 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 | 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. |
| 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 effe | cts and also chronic effects from short and long term exposure |
|--------------------------------|--|
| <u>Short term exposure</u> | |
| Potential immediate effects | : No known significant effects or critical hazards. |

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

Section 11. Toxicological information

| <u>Long term exposure</u> | |
|--------------------------------|---|
| Potential immediate effects | : No known significant effects or critical hazards. |
| Potential delayed effects | : No known significant effects or critical hazards. |
| Potential chronic health effe | <u>ets</u> |
| 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

| | A | |
|-------|---------|-------------|
| Acute | TOXICIT | / estimates |

| Route | ATE value |
|---------------------|----------------|
| Component 8 Oral | 33333.33 mg/kg |

Section 12. Ecological information

Toxicity

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

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soilSoil/water partition: Not available.coefficient (Koc)

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.



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Section 14. Transport information

| | DOT Classification | TDG Classification | IMDG | ΙΑΤΑ |
|-------------------------------|--------------------|--------------------|----------------|----------------|
| 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 |
| <u>SARA 302/304</u> | |
| No products were found. | |
| SARA 304 RQ | : Not applicable. |
| <u>SARA 311/312</u> | |
| Classification | : SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A |
| Composition/information | on ingredients |

Section 15. Regulatory information

| Name | Classification |
|------------------------------------|--|
| Component 8 Potassium hydroxide | CORROSIVE TO METALS - Category 1 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 1A SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |

<u>SARA 313</u>

There is no data available.

| State regulations | |
|--------------------------------|--|
| Massachusetts | : The following components are listed: Glycerol |
| New York | : None of the components are listed. |
| New Jersey | : The following components are listed: Glycerol |
| Pennsylvania | : The following components are listed: Glycerol |
| <u>California Prop. 65</u> | |
| 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

| Ingredient name | List name | Status |
|-----------------|-----------|--------|
| Not listed. | | |
| | | |

Section 16. Other information

| | Classification | Justification |
|--|---|--|
| Component 8 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | | Calculation method Calculation method |
| <u>History</u> | | |
| Date of issue mm/dd/yyyy | : 08/15/2019 | |
| Date of previous issue | : Not applicable | |
| Version | : 1 | |
| Prepared by | : KMK Regulatory Services Inc. | |
| Key to abbreviations | : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Cla | ssification and Labelling of Chemicals |

- 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



Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

