

1-Substance Identity and Company Contact Information ELISA Kits

Quansys Biosciences
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2-Composition/Data on components

Solutions in the ELISA kit are multicomponent mixtures in water. Only BSA and trehalose exceed the 1% concentration for non-extremely hazardous substances (EHS) outlined in 40CFR Part §370.14(c).

Hazardous Components:

Bronidox L, CAS# 30007-47-7 Concentration: <.001%.

Kathon GC/ICP, Mixture, Concentration: 0.1%.

- 5-Chloro-2-methyl-4-isothiazolin-3-one, CAS# 26172-55-4. Concentration 1.1 - 1.25%.
- 2-Methyl-4-isothiazolin-3-one, CAS# 2682-20-4. Concentration: 0.3 - 0.45%.
- Magnesium Chloride, CAS# 7786-30-3. Concentration: .5-.1%.
- Magnesium nitrate, CAS# 10377-60-3. Concentration: 21-23.5%.
- Water, CAS# 7732-18-5. Concentration: 74-77%.

Trehalose, CAS# 6138-23-4. Concentration: < 4 w/v %.

Pluronic F-68, CAS#9003-11-6, Concentration: ≤.05%.

Ethylene glycol tetraacetic acid (EGTA), CAS# Concentration: <0.04% w/v.

Tween-20, CAS# 9003-11-6, Concentration: 0.05%.

Bovine serum albumin, CAS# 9048-46-8. Concentration: <8%.

3-Hazard Identification

The following information is provided by our suppliers pertaining to undiluted full strength chemicals, not at the concentrations which are in the kit (see above concentrations). To the best of our knowledge, toxicological information at the concentrations found in this kit is not available.

- Kathon CG/ICP: Corrosive, causes severe eye/skin burns. May trigger sensitization with skin contact. Inhalational irritant.

1. Eyes: Can cause corrosion to eyes, and permanent eye injury.
 2. Skin: Can cause corrosion to the skin, burns, and sensitization insusceptible individuals.
 3. Ingestion: May be harmful if swallowed
 4. Inhalation: Inhalation may cause irritation of nose, throat, and lungs.
- Trehalose
 1. Eyes: May cause irritation.
 2. Skin: May cause irritation.
 3. Ingestion: Hazardous if ingested.
 4. Inhalation: May be hazardous.
 - Bovine serum albumin
 1. Eyes: May cause irritation.
 2. Skin: May cause skin sensitization.
 3. Ingestion: May cause gastro-intestinal upset
 4. Inhalation: Low hazard expected.

4-First Aid Measures

Inhalation: Remove to fresh air. If there is difficulty breathing, seek medical attention. Give artificial respiration if breathing stops.

Ingestion: If conscious rinse mouth with water. Seek medical attention. Do not induce vomiting unless directed by a medical professional.

Skin exposure: Flush site of exposure with water. Cold water may be used. Wash site of injury with non-abrasive soap. Remove contaminated clothing and wash prior to re-wearing. Seek medical attention if irritation persists.

Eye exposure: Remove contact lenses (if applicable) and immediately flush with water for a minimum of 15 minutes. Seek medical attention if irritation persists.

5-Fire Fighting Measures

Flash Points: Unknown

Explosion limits: Unknown

Extinguishing media: Use media appropriate to the surrounding fire.

Specific hazard to fire fighting: Unknown

6-Accidental Release Measures

Small spill and leak: Using appropriate tools and protective equipment dispose of spilled solid or liquids in a waste disposal container according to applicable regulations. Clean contaminated surface with water.

7-Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid ingestion.

Storage: See insert for storage conditions. Do not store near food or feed.

8-Exposure Controls and Personal Protection

Engineering controls: Eyewash and shower.

Personal Protective Equipment: Gloves, lab coat, and eye protection recommended.

9-Physical and Chemical Properties

Physical state and appearance: Lyophilized pellets or liquids.

Dispersion properties: Not applicable.

Solubility: Liquids are water soluble.

Odor: No readily apparent odor.

Taste: Not tested.

Color: Liquids are clear to brownish in appearance.

10-Stability and Reactivity

Stability and hazardous reaction: Product is stable at recommended storage conditions.

Materials to avoid: Strong oxidizing agents.

Conditions to avoid: Heat over 600° F (316° C)

Hazardous decomposition products: dense smoke, carbon monoxide, carbon dioxide, styrene, benzene, and other hydrocarbons can be released at temperatures above 600 °F (316° C).

Polymerization: Kits will not polymerize.

11-Toxicological Information

Kathon CG/ICP

Acute:

- LD₅₀ Oral rat male 3350 mg/kg, oral rat female 2630 mg/kg.
- Rat inhalation LC₅₀ 4 hour .33 mg/l.
- Dermal: LD₅₀ rabbit >5000 mg/kg.
- Skin irritation: rabbit corrosive.
- Eye irritation: rabbit corrosive.
- Sensitization: guinea pig causes irritation.

Chronic: Not given.

Carcinogenicity: Non carcinogenic in rat oral and mouse dermal models.

Mutagenicity: None.

Teratogenicity: None.

Reproductive: None.

Developmental: Not given.

Trehalose

Acute:

- LD₅₀ Oral rat male 4600 mg/kg.
- Inhalation: No data available. May be irritating if inhaled.
- Dermal: no human skin irritation after 48 hours. May be harmful if absorbed through the skin.
- Skin irritation: May cause irritation.
- Eye irritation: May cause irritation.
- Sensitization: May cause irritation.

Chronic: Not given.

Carcinogenicity: Not given.

Mutagenicity: Not given.

Teratogenicity: Not given.

Reproductive: OSHA reproductive hazard.

Developmental: Not given.

BSA

Acute:

- Lethality: No data available.
- Inhalation No data available.
- Dermal: No data available.
- Skin irritation: No data available.
- Eye irritation: No data available.
- Sensitization: No data available.

Chronic: Not given.

Carcinogenicity: Not classified as carcinogenic.

Mutagenicity: No data available.

Teratogenicity: No data available.

Reproductive: No data available.

Developmental: No data available.

12-Ecological Information

Stability and Bioaccumulation: Unknown, plates unlikely to rapidly biodegrade.

Ecotoxicity: Unknown.

13-Disposal Considerations

All materials in this kit must be disposed of according to local, state, and federal regulations.

14-Transport Information

- DOT Proper shipping name: None
- These kits are shipped as non-hazardous.

15-Regulatory Information

- Kathon CG/CIP is considered hazardous under the OSHA hazard communication standard 29 CFR 1910.1200.
 1. Kathon CG/ICP is excluded from the supplier and labeling and material safety data sheet requirements of section 12 of the Canadian Hazardous Products Act as it is subject to regulation by the Pest Control Products Act (P.C.P. Act).
 2. SARA Title III, Section 311/312 Categorizations (40CFR370): Acute Health Hazard.
 3. SARA TITLE III, Section 313 Information (40CFR372): Magnesium nitrate CAS# 10377-60-3 is at or above *de minimis* concentrations.
 4. CERCLA (40CFR302.4): There is insufficient quantity in this kit of Kathon CG/ICP to attain the 100 lb reportable release quantity. Kathon CG/ICP is regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304. This material is or contains chemical(s) listed in 40 CFR Table 302.4 or nondesignated RCRA ICR substance(s)
 5. Kathon GC/ICP is exempt from the US Toxic Substances Control Act (TSCA) inventory listing requirements as it is subject to the US Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).
- Trehalose
 1. OSHA: Reproductive hazard.
 2. TSCA: On TSCA inventory.
 3. SARA Title III, Section 311/312 Categorizations (40CFR370): Chronic Health Hazard.
- BSA
 1. No known hazards or reporting requirements.

16-Other Information

Kathon: HMIS Health 3, Fire 0, Reactivity 0.

BSA: Health 0, Fire 1, Reactivity 0.

Trehalose: HMIS Health 1, Fire 0, Reactivity 0.

This product is sold for use by well trained laboratory personnel that are adept at avoiding spills, keeping hands clean, and not rubbing eyes in the laboratory. The information in this MSDS is believed to be correct but is not intended to be all inclusive and should only be used as a guide. Quansys Biosciences shall not be held liable for any damage that occurs from handling or contacting this product.



Substrate A MSDS

1-Substance Identity and Company Contact Information

Chemiluminescent substrate solution A

Quansys Biosciences
365 North 600 West
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Telephone: 888-782-6797
Facsimile: 435-750-6869
www.quansysbio.com

2-Composition/Data on components

Solution A is multicomponent mixture in water

Hazardous component: Ethyl Alcohol \leq 3.5% w/w.

CAS#: 64-17-5

OSHA PEL: 1000 ppm 1900 mg/m³ TWA

3-Hazard Identification

Acute: May be harmful if swallowed, absorbed through the skin, or aspirated

Chronic: Unknown

4-First Aid Measures

Eye or skin Contact: Flush with water (minimum 15 minutes) and remove contaminated clothing.

Ingestion: Seek medical attention.

5-Fire Fighting Measures

Extinguishing Media: Use media appropriate to surrounding conditions

Special Firefighting Procedures: Wear self contained breathing apparatus.

Special Fire and Explosion Hazards: Not expected to present a significant hazard.

6-Accidental Release Measures

Cover and remove with absorbent material storing material in a closed container. Wash the spill site after spill removal.

7-Handling and Storage

Keep tightly closed and store at 2-8°C. Bring to temperature before opening.

8-Exposure Controls and Personal Protection

Personal protective equipment: Use protective eyewear, lab coat, and chemical resistant gloves.

Work and handling practices: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

9-Physical and Chemical Properties

Appearance: Colorless liquid

Boiling point: Approx 100 °C

Density: 1.0 g/ml

pH: 8

Evaporation Rate: Similar to water

10-Stability and Reactivity

Incompatibility: Strong oxidizing and reducing agents.

Hazardous Decomposition Products: When stored as labeled there are no known hazardous decomposition products

11-Toxicological Information

Acute: This product has not been tested.

Chronic: This product has not been tested.

Carcinogenicity: This product has not been tested.

Mutagenicity: This product has not been tested.

Teratogenicity: This product has not been tested.

Reproductive: This product has not been tested.

Developmental: This product has not been tested.

12-Ecological Information

Stability and Bioaccumulation: This product has not been tested.

Ecotoxicity: Do not add to surface water or sanitary water sources.

13-Disposal Considerations

Must comply with applicable Local, State, and Federal laws.

14-Transport Information

Must comply with applicable Local, State, and Federal laws.

15-Regulatory Information

This substance is not listed on the TSCA Inventory of Commercial Substances. As such it may only be used for scientific experimentation, research, and analysis under the supervision of a technically qualified individual.

16-Other Information

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Substrate B MSDS

1-Substance Identity and Company Contact Information

Chemiluminescent substrate solution B

Quansys Biosciences
365 North 600 West
Logan, Utah 84321
Telephone: 888-782-6797
Facsimile: 435-750-6869
www.quansysbio.com

2-Composition/Data on components

Solution B is multicomponent mixture in water

3-Hazard Identification

Acute: May be harmful if swallowed, absorbed through the skin, or aspirated

Chronic: Unknown

4-First Aid Measures

Eye or skin Contact: Flush with water (minimum 15 minutes) and remove contaminated clothing.

Ingestion: Seek medical attention.

5-Fire Fighting Measures

Extinguishing Media: Use media appropriate to surrounding conditions

Special Firefighting Procedures: Wear self contained breathing apparatus.

Special Fire and Explosion Hazards: Not expected to present a significant hazard.

6-Accidental Release Measures

Cover and remove with absorbent material storing material in a closed container. Wash the spill site after spill removal.

7-Handling and Storage

Keep tightly closed and store at 2-8°C. Bring to temperature before opening.

8-Exposure Controls and Personal Protection

Personal protective equipment: Use protective eyewear, lab coat, and chemical resistant gloves.

Work and handling practices: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

9-Physical and Chemical Properties

Appearance: Colorless liquid

Boiling point: Approx 100 °C

Density: 1.0 g/ml

pH: 8

Evaporation Rate: Similar to water

10-Stability and Reactivity

Incompatibility: Strong oxidizing and reducing agents.

Hazardous Decomposition Products: When stored as labeled no known hazardous decomposition

11-Toxicological Information

Acute: This product has not been tested.

Chronic: This product has not been tested.

Carcinogenicity: This product has not been tested.

Mutagenicity: This product has not been tested.

Teratogenicity: This product has not been tested.

Reproductive: This product has not been tested.

Developmental: This product has not been tested.

12-Ecological Information

Stability and Bioaccumulation: This product has not been tested.

Ecotoxicity:

13-Disposal Considerations

Must comply with applicable Local, State, and Federal laws.

14-Transport Information

Must comply with applicable Local, State, and Federal laws.

15-Regulatory Information

This substance is not listed on the TSCA Inventory of Commercial Substances. As such it may only be used for scientific experimentation, research, and analysis under the supervision of a technically qualified individual.

16-Other Information

The information in this MSDS is believed to be correct but is not intended to be all inclusive and should only be used as a guide. Quansys biosciences shall not be held liable for any damage that occurs from handling or contacting this product.