



# SAFETY DATA SHEET

## Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate (strip or solid)

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 400004/400006  
**Product Name:** Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate (strip or solid)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** None  
**GHS Hazard Phrases:**  
 Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:**  
 No phrases apply.  
**GHS Response Phrases:**  
 No phrases apply.  
**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS # | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No. | GHS Classification |
|--------------------|---|---------------|-------------------------|--------------------|
| NA<br>NA           | Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well<br>Plate          | 100.0 %       | NA<br>NA                | No data available. |

**Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate (strip or solid)**

Revision: 08/25/2017

Supersedes Revision: 03/03/2017

**Section 4. First Aid Measures**

**4.1 Description of First Aid Measures:**

**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

**Section 5. Fire Fighting Measures**

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

**Hazards:**

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

**Section 6. Accidental Release Measures**

**6.1 Protective Precautions,** Avoid raising and breathing dust, and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**Precautions:**

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

**Section 7. Handling and Storage**

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

**Section 8. Exposure Controls/Personal Protection**

**8.1 Exposure Parameters:**

|   |   |
|---|---|
| <b>8.2 Exposure Controls:</b>                         |   |
| <b>8.2.1 Engineering Controls (Ventilation etc.):</b> | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.  |
| <b>8.2.2 Personal protection equipment:</b>           |   |
| <b>Eye Protection:</b>                                | Safety glasses  |
| <b>Protective Gloves:</b>                             | Compatible chemical-resistant gloves  |
| <b>Other Protective Clothing:</b>                     | Lab coat  |
| <b>Respiratory Equipment (Specify Type):</b>          | NIOSH approved respirator, as conditions warrant.   |
| <b>Work/Hygienic/Maintenance Practices:</b>           | Do not take internally.<br>Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.<br>Wash thoroughly after handling.<br>No data available. |

### Section 9. Physical and Chemical Properties

|  |                                |
|--|--------------------------------|
| <b>9.1 Information on Basic Physical and Chemical Properties</b> |                                |
| <b>Physical States:</b>  | [ ] Gas [ ] Liquid [ X ] Solid |
| <b>Appearance and Odor:</b>                                      | Plate                          |
| <b>pH:</b>   | No data.                       |
| <b>Melting Point:</b>  | No data.                       |
| <b>Boiling Point:</b>  | No data.                       |
| <b>Flash Pt:</b>   | No data.                       |
| <b>Evaporation Rate:</b>   | No data.                       |
| <b>Flammability (solid, gas):</b>                                | No data available.             |
| <b>Explosive Limits:</b>   | LEL: No data. UEL: No data.    |
| <b>Vapor Pressure (vs. Air or mm Hg):</b>                        | No data.                       |
| <b>Vapor Density (vs. Air = 1):</b>                              | No data.                       |
| <b>Specific Gravity (Water = 1):</b>                             | No data.                       |
| <b>Solubility in Water:</b>                                      | No data.                       |
| <b>Octanol/Water Partition Coefficient:</b>                      | No data.                       |
| <b>Autoignition Pt:</b>  | No data.                       |
| <b>Decomposition Temperature:</b>                                | No data.                       |
| <b>Viscosity:</b>  | No data.                       |
| <b>9.2 Other Information</b>                                     |                                |
| <b>Percent Volatile:</b>   | No data.                       |

### Section 10. Stability and Reactivity

|   |   |
|---|---|
| <b>10.1 Reactivity:</b>                           | No data available.  |
| <b>10.2 Stability:</b>                            | Unstable [ ] Stable [ X ]   |
| <b>10.3 Stability Note(s):</b>                    | Stable if stored in accordance with information listed on the product insert. |
| <b>Polymerization:</b>                            | Will occur [ ] Will not occur [ X ]   |
| <b>10.4 Conditions To Avoid:</b>                  | No data available.  |
| <b>10.5 Incompatibility - Materials To Avoid:</b> | No data available.  |
| <b>10.6 Hazardous</b>                             | No data available.  |



**SAFETY DATA SHEET**  
**Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well**  
**Plate (strip or solid)**

Revision: 08/25/2017  
 Supersedes Revision: 03/03/2017

Decomposition or Byproducts:

**Section 11. Toxicological Information**

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

| CAS # | Hazardous Components (Chemical Name)                | NTP  | IARC | ACGIH | OSHA |
|-------|---|------|------|-------|------|
| NA    | Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate | n.a. | n.a. | n.a.  | n.a. |

**Section 12. Ecological Information**

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

**Section 13. Disposal Considerations**

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

**Section 14. Transport Information**

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.  
**DOT Hazard Class:**  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Not dangerous goods.  
**UN Number:**  
**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

**Section 15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS # | Hazardous Components (Chemical Name)                | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-------|---|--------------|-----------|--------------|
| NA    | Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate | No           | No        | No           |

| CAS # | Hazardous Components (Chemical Name)                | Other US EPA or State Lists                              |
|-------|---|--|
| NA    | Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No |



**Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well**

Revision: 08/25/2017

**Plate (strip or solid)**

Supersedes Revision: 03/03/2017

**Regulatory Information**

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

**Statement:**

No.1272/2008.

**Section 16. Other Information**

**Revision Date:**

08/25/2017

**Additional Information About**

No data available.

**This Product:**

**Company Policy or Disclaimer:**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 400035  
**Product Name:** Polysorbate 20  
**Synonyms:** Tween 20™;
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** None  
**GHS Hazard Phrases:**  
 Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:**  
 No phrases apply.  
**GHS Response Phrases:**  
 No phrases apply.  
**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS #     | Hazardous Components (Chemical Name)/<br>REACH Registration No.   | Concentration | EC No./<br>EC Index No. | GHS Classification |
|------------------------|---|---------------|-------------------------|--------------------|
| 9005-64-5<br>TR7400000 | Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives) | 100.0 %       | 500-018-3<br>NA         | No data available. |

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**Measures:**

- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
- In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid raising and breathing dust, and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**

**Physical States:** [ ] Gas [X] Liquid [ ] Solid

**Appearance and Odor:** A viscous liquid

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**

**Percent Volatile:** N.A.

**Molecular Formula & Weight:** C<sub>58</sub>H<sub>114</sub>O<sub>26</sub> 1227.5



### Section 10. Stability and Reactivity

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.
- Polymerization:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid:** No data available.
- 10.5 Incompatibility - Materials To Avoid:** strong oxidizing agents
- 10.6 Hazardous Decomposition or Byproducts:** carbon dioxide  
carbon monoxide

### Section 11. Toxicological Information

- 11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.
- Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

| CAS #     | Hazardous Components (Chemical Name)  | NTP  | IARC | ACGIH | OSHA |
|-----------|---|------|------|-------|------|
| 9005-64-5 | Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives) | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

- DOT Proper Shipping Name:** Not dangerous goods.
- DOT Hazard Class:**
- UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

- ADR/RID Shipping Name:** Not dangerous goods.
- UN Number:**
- Hazard Class:**



# SAFETY DATA SHEET

## Polysorbate 20

Revision: 08/25/2017  
Supersedes Revision: 03/03/2017**14.3 AIR TRANSPORT (ICAO/IATA):****ICAO/IATA Shipping Name:** Not dangerous goods.**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### Section 15. Regulatory Information

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #     | Hazardous Components (Chemical Name)  | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-----------|---|--------------|-----------|--------------|
| 9005-64-5 | Polyoxyethylenesorbitan Monolaurate<br>(polysorbate 20; Sorbitan, monododecanoate,<br>poly(oxy-1,2-ethanediyl) derivatives) | No           | No        | No           |

| CAS #     | Hazardous Components (Chemical Name)  | Other US EPA or State Lists  |
|-----------|---|--|
| 9005-64-5 | Polyoxyethylenesorbitan Monolaurate<br>(polysorbate 20; Sorbitan, monododecanoate,<br>poly(oxy-1,2-ethanediyl) derivatives) | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -<br>Inventory; CA PROP.65: No |

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 08/25/2017**Additional Information About This Product:** No data available.**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 400040  
**Product Name:** EIA Tracer Dye
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**  
**Skin Corrosion/Irritation, Category 3**
- 2.2 Label Elements:**
- GHS Signal Word:** **Warning**
- GHS Hazard Phrases:**  
 H316: Causes mild skin irritation.
- GHS Precaution Phrases:**  
 No phrases apply.
- GHS Response Phrases:**  
 P332+313: If skin irritation occurs, get medical advice/attention.
- GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Causes mild skin irritation.  
**Effects and Symptoms:** Material may be irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye or respiratory system irritation.  
 May temporarily stain skin.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS # | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No. | GHS Classification |
|--------------------|---|---------------|-------------------------|--------------------|
| NA<br>NA           | EIA Tracer Dye  | 100.0 %       | NA<br>NA                | Skin Corr. 3: H316 |

### Section 4. First Aid Measures

**4.1 Description of First Aid**

**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne (Ventilation etc.): levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

**(Specify Type):**

**Work/Hygienic/Maintenan** Do not take internally.

**ce Practices:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**

**Physical States:**  Gas  Liquid  Solid

**Appearance and Odor:** A red liquid

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm** No data.

**Hg):**

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition** No data.

**Coefficient:**

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**

**Percent Volatile:** No data.

## Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable  Stable

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will occur  Will not occur

**10.4 Conditions To Avoid:** No data available.

**10.5 Incompatibility - Materials** organic materials

**To Avoid:** strong acids

strong oxidizing agents



# SAFETY DATA SHEET

## EIA Tracer Dye

Revision: 08/25/2017  
Supersedes Revision: 03/03/2017

**10.6 Hazardous Decomposition or Byproducts:** No data available.

### Section 11. Toxicological Information

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.  
Sodium Hydroxide - Toxicity Data: Intraperitoneal LD50 (mouse): 40 mg/kg; Oral TDLO (rat): 44 mg/kg

**Chronic Toxicological Effects:** Sodium Hydroxide - Investigated as a mutagen, reproductive effector, and tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.  
Sodium Hydroxide RTECS Number: WB4900000

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

| CAS # | Hazardous Components (Chemical Name) | NTP  | IARC | ACGIH | OSHA |
|-------|--------------------------------------|------|------|-------|------|
| NA    | EIA Tracer Dye                       | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

**12.2 Persistence and Degradability:** No data available.

**12.3 Bioaccumulative Potential:** No data available.

**12.4 Mobility in Soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** No data available.

**12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**  
DOT Proper Shipping Name: Not dangerous goods.  
DOT Hazard Class:  
UN/NA Number:

**14.1 LAND TRANSPORT (European ADR/RID):**  
ADR/RID Shipping Name: Not dangerous goods.  
UN Number:  
Hazard Class:

**14.3 AIR TRANSPORT (ICAO/IATA):**  
ICAO/IATA Shipping Name: Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.



# SAFETY DATA SHEET

## EIA Tracer Dye

Revision: 08/25/2017  
Supersedes Revision: 03/03/2017

### Section 15. Regulatory Information

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS # | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-------|--------------------------------------|--------------|-----------|--------------|
| NA    | EIA Tracer Dye                       | No           | No        | No           |

| CAS # | Hazardous Components (Chemical Name) | Other US EPA or State Lists                              |
|-------|--------------------------------------|--|
| NA    | EIA Tracer Dye                       | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No |

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 08/25/2017

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

- 1.1 Product Code:** 400042  
**Product Name:** EIA Antiserum Dye
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Section 2. Hazards Identification**

**2.1 Classification of the Substance or Mixture:**

**Carcinogenicity, Category 1B**

**2.2 Label Elements:**



**GHS Signal Word:** **Danger**

**GHS Hazard Phrases:**

H350: May cause cancer.

**GHS Precaution Phrases:**

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

**GHS Response Phrases:**

P308+313: IF exposed or concerned: Get medical attention/advice.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

**2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.

**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.

May cause cancer.

May cause eye, skin, or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Section 3. Composition/Information on Ingredients**

| CAS # /<br>RTECS # | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No. | GHS Classification  |
|--------------------|---|---------------|-------------------------|---------------------|
| NA<br>NA           | EIA Antiserum Dye   | 100.0 %       | NA<br>NA                | Carcinogen 1B: H350 |



### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

**Section 9. Physical and Chemical Properties**

**9.1 Information on Basic Physical and Chemical Properties**

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid

**Appearance and Odor:** A blue solution

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**

**Percent Volatile:** No data.

**Section 10. Stability and Reactivity**

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will occur [ ] Will not occur [ X ]

**10.4 Conditions To Avoid:** No data available.

**10.5 Incompatibility - Materials To Avoid:** strong oxidizing agents

**10.6 Hazardous:** No data available.

**Decomposition or Byproducts:**

### Section 11. Toxicological Information

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

**Chronic Toxicological Effects:** Contains a component that has been investigated as a carcinogen.

**Carcinogenicity/Other Information:** Contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

**Carcinogenicity:** NTP? No      IARC Monographs? Yes      OSHA Regulated? No

| CAS # | Hazardous Components (Chemical Name) | NTP  | IARC | ACGIH | OSHA |
|-------|--------------------------------------|------|------|-------|------|
| NA    | EIA Antiserum Dye                    | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

**12.2 Persistence and Degradability:** No data available.

**12.3 Bioaccumulative Potential:** No data available.

**12.4 Mobility in Soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** No data available.

**12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.  
**DOT Hazard Class:**  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Not dangerous goods.  
**UN Number:**  
**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.



# SAFETY DATA SHEET

## EIA Antiserum Dye

Revision: 08/25/2017  
Supersedes Revision: 03/03/2017

### Section 15. Regulatory Information

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS # | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-------|--------------------------------------|--------------|-----------|--------------|
| NA    | EIA Antiserum Dye                    | No           | No        | No           |

| CAS # | Hazardous Components (Chemical Name) | Other US EPA or State Lists                              |
|-------|--------------------------------------|--|
| NA    | EIA Antiserum Dye                    | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No |

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 08/25/2017

**Additional Information About This Product:** No data available.

**This Product:**

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according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 400062  
**Product Name:** Wash Buffer Concentrate (400X)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** None  
**GHS Hazard Phrases:**  
 Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:**  
 No phrases apply.  
**GHS Response Phrases:**  
 No phrases apply.  
**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS #     | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No. | GHS Classification |
|------------------------|---|---------------|-------------------------|--------------------|
| 7758-11-4<br>TC5580000 | Potassium phosphate, dibasic                                    | 53.0 %        | 231-834-5<br>NA         | No data available. |
| 7778-77-0<br>TC6615500 | Potassium phosphate, Monobasic                                  | 12.9 %        | 231-913-4<br>NA         | No data available. |
| 7732-18-5<br>ZC0110000 | Water   | 34.1 %        | 231-791-2<br>NA         | No data available. |

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**Measures:**

- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
- In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed. Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**



# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

|   |  |
|---|--|
| <b>8.2 Exposure Controls:</b>                         |  |
| <b>8.2.1 Engineering Controls (Ventilation etc.):</b> | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.   |
| <b>8.2.2 Personal protection equipment:</b>           |  |
| <b>Eye Protection:</b>                                | Safety glasses   |
| <b>Protective Gloves:</b>                             | Compatible chemical-resistant gloves   |
| <b>Other Protective Clothing:</b>                     | Lab coat   |
| <b>Respiratory Equipment (Specify Type):</b>          | NIOSH approved respirator, as conditions warrant.  |
| <b>Work/Hygienic/Maintenance Practices:</b>           | Do not take internally.<br>Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.<br>Wash thoroughly after handling.<br>No data available. |

## Section 9. Physical and Chemical Properties

|  |                                |
|--|--------------------------------|
| <b>9.1 Information on Basic Physical and Chemical Properties</b> |                                |
| <b>Physical States:</b>  | [ ] Gas [ X ] Liquid [ ] Solid |
| <b>Appearance and Odor:</b>                                      | A clear, colorless solution    |
| <b>pH:</b>   | 7.4                            |
| <b>Melting Point:</b>  | No data.                       |
| <b>Boiling Point:</b>  | No data.                       |
| <b>Flash Pt:</b>   | No data.                       |
| <b>Evaporation Rate:</b>   | No data.                       |
| <b>Flammability (solid, gas):</b>                                | No data available.             |
| <b>Explosive Limits:</b>   | LEL: No data. UEL: No data.    |
| <b>Vapor Pressure (vs. Air or mm Hg):</b>                        | No data.                       |
| <b>Vapor Density (vs. Air = 1):</b>                              | No data.                       |
| <b>Specific Gravity (Water = 1):</b>                             | No data.                       |
| <b>Solubility in Water:</b>                                      | No data.                       |
| <b>Octanol/Water Partition Coefficient:</b>                      | No data.                       |
| <b>Autoignition Pt:</b>  | No data.                       |
| <b>Decomposition Temperature:</b>                                | No data.                       |
| <b>Viscosity:</b>  | No data.                       |
| <b>9.2 Other Information</b>                                     |                                |
| <b>Percent Volatile:</b>   | No data.                       |

## Section 10. Stability and Reactivity

|   |   |
|---|---|
| <b>10.1 Reactivity:</b>                           | No data available.  |
| <b>10.2 Stability:</b>                            | Unstable [ ] Stable [ X ]   |
| <b>10.3 Stability Note(s):</b>                    | Stable if stored in accordance with information listed on the product insert. |
| <b>Polymerization:</b>                            | Will occur [ ] Will not occur [ X ]   |
| <b>10.4 Conditions To Avoid:</b>                  | No data available.  |
| <b>10.5 Incompatibility - Materials To Avoid:</b> | strong oxidizing agents   |
| <b>10.6 Hazardous</b>                             | phosphorus oxides   |



# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

Decomposition or Byproducts: potassium oxides

### Section 11. Toxicological Information

11.1 Information on Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

| CAS #     | Hazardous Components (Chemical Name) | NTP  | IARC | ACGIH | OSHA |
|-----------|--------------------------------------|------|------|-------|------|
| 7758-11-4 | Potassium phosphate, dibasic         | n.a. | n.a. | n.a.  | n.a. |
| 7778-77-0 | Potassium phosphate, Monobasic       | n.a. | n.a. | n.a.  | n.a. |
| 7732-18-5 | Water                                | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

- 12.1 Toxicity: Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability: No data available.
- 12.3 Bioaccumulative Potential: No data available.
- 12.4 Mobility in Soil: No data available.
- 12.5 Results of PBT and vPvB assessment: No data available.
- 12.6 Other adverse effects: No data available.

### Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

#### 14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not dangerous goods.

DOT Hazard Class:

UN/NA Number:

#### 14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number:

Hazard Class:

#### 14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Information: Transport in accordance with local, state, and federal regulations.





# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

Revision: 08/25/2017  
Supersedes Revision: 03/03/2017

### Section 15. Regulatory Information

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS #     | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-----------|--------------------------------------|--------------|-----------|--------------|
| 7758-11-4 | Potassium phosphate, dibasic         | No           | No        | No           |
| 7778-77-0 | Potassium phosphate, Monobasic       | No           | No        | No           |
| 7732-18-5 | Water                                | No           | No        | No           |

| CAS #     | Hazardous Components (Chemical Name) | Other US EPA or State Lists   |
|-----------|--------------------------------------|---|
| 7758-11-4 | Potassium phosphate, dibasic         | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 7778-77-0 | Potassium phosphate, Monobasic       | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 7732-18-5 | Water                                | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 08/25/2017

**Additional Information About This Product:** No data available.

**This Product:**

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according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

- 1.1 Product Code:** 400080  
**Product Name:** Tris Buffer Concentrate (10X)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Section 2. Hazards Identification**

**2.1 Classification of the Substance or Mixture:**

**Acute Toxicity: Oral, Category 4**  
**Aquatic Toxicity (Acute), Category 3**  
**Aquatic Toxicity (Chronic), Category 3**

**2.2 Label Elements:**



**GHS Signal Word:** Warning

**GHS Hazard Phrases:**

H302: Harmful if swallowed.  
H402: Harmful to aquatic life.  
H412: Harmful to aquatic life with long lasting effects.

**GHS Precaution Phrases:**

P264: Wash {hands} thoroughly after handling.  
P273: Avoid release to the environment.

**GHS Response Phrases:**

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330: Rinse mouth.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

**2.3 Adverse Human Health** Harmful if swallowed.

**Effects and Symptoms:** Harmful to aquatic life with long lasting effects.  
Material is irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation or skin absorption.  
May cause eye, skin, or respiratory irritation.  
To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS #      | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No.   | GHS Classification   |
|-------------------------|---|---------------|---------------------------|--|
| 1185-53-1<br>NA         | Tris[hydroxymethyl]aminomethane hydrochloride                   | 13.2 %        | 214-684-5<br>NA           | No data available.   |
| 77-86-1<br>TY2900000    | Trizma base   | 1.9 %         | 201-064-4<br>NA           |  |
| 26628-22-8<br>VY8050000 | Sodium azide  | 0.5 %         | 247-852-1<br>011-004-00-7 | Acute Tox.(O) 2: H300<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410                        |
| 7647-14-5<br>VZ4725000  | Sodium chloride   | 8.4 %         | 231-598-3<br>NA           | No data available.   |
| 7646-85-7<br>ZH1400000  | Zinc chloride   | 0.02 %        | 231-592-0<br>030-003-00-2 | Acute Tox.(O) 4: H302<br>Skin Corr. 1B: H314<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410 |
| 7791-18-6<br>OM2975000  | Magnesium chloride, hexahydrate                                 | 0.4 %         | NA<br>NA                  | No data available.   |
| 9048-46-8<br>MT6446000  | Bovine Serum Albumin (BSA)                                      | 5.0 %         | 232-936-2<br>NA           | Acute Tox.(O) 4: H302  |
| 7732-18-5<br>ZC0110000  | Water   | 70.58 %       | 231-791-2<br>NA           | No data available.   |

### Section 4. First Aid Measures

**4.1 Description of First Aid**
**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and** No data available.

**Hazards:**

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

- 6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.  
**Protective Equipment and** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,  
**Emergency Procedures:** and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental** Take steps to avoid release into the environment, if safe to do so.  
**Precautions:**
- 6.3 Methods and Material For** Contain spill and collect, as appropriate.  
**Containment and Cleaning** Transfer to a chemical waste container for disposal in accordance with local regulations.  
**Up:**

### Section 7. Handling and Storage

- 7.1 Precautions To Be Taken** Avoid breathing dust/fume/gas/mist/vapours/spray.  
**in Handling:** Avoid prolonged or repeated exposure.
- 7.2 Precautions To Be Taken** Keep container tightly closed.  
**in Storing:** Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

| CAS #      | Chemical Name | Jurisdiction | Recommended Exposure Limits             | Notations       |
|------------|---------------|--------------|---|-----------------|
| 77-86-1    | Trizma base   | ACGIH TLV    | CEIL: 5 mg/m3 (salts)                   |                 |
|            |               | France VL    | TWA: 5 mg/m3                            |                 |
|            |               | OSHA PELs    | TWA: 5 mg/m3                            |                 |
|            |               | Britain EH40 | TWA: 5.0 mg/m3                          | Skin Absorption |
| 26628-22-8 | Sodium azide  | ACGIH TLV    | CEIL: 0.29 mg/m3                        |                 |
|            |               | Europe       | TWA: 0.1 mg/m3<br>STEL: 0.3 mg/m3       | Skin Absorption |
|            |               | France VL    | TWA: 0.1 mg/m3<br>STEL: 0.3 mg/m3       |                 |
|            |               | Britain EH40 | TWA: 0.1 mg/m3 ()<br>STEL: 0.3 mg/m3 () | Skin Absorption |
| 7646-85-7  | Zinc chloride | ACGIH TLV    | TLV: 1 mg/m3<br>STEL: 2 mg/m3           |                 |
|            |               | France VL    | TWA: 1 mg/m3                            |                 |
|            |               | OSHA PELs    | PEL: 1 mg/m3                            |                 |
|            |               | Britain EH40 | TWA: 1 mg/m3 ()<br>STEL: 2 mg/m3 ()     |                 |

**8.2 Exposure Controls:**

- 8.2.1 Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne  
**(Ventilation etc.):** levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

**(Specify Type):**

**Work/Hygienic/Maintenan** Do not take internally.  
**ce Practices:**

Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.  
Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid

**Appearance and Odor:** 1 M Tris-HCl, pH 7.6, containing 5% BSA, 1.45 M sodium chloride, 20 mM MgCl<sub>2</sub>, 1 mM ZnCl<sub>2</sub>, and 0.5% sodium azide

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

### 9.2 Other Information

**Percent Volatile:** No data.

## Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will occur [ ] Will not occur [ X ]

**10.4 Conditions To Avoid:** No data available.

**10.5 Incompatibility - Materials To Avoid:** bases  
oxidizing agents

**10.6 Hazardous Decomposition or Byproducts:** carbon dioxide  
carbon monoxide  
hydrogen chloride gas  
nitrogen oxides  
sodium oxides

### Section 11. Toxicological Information

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.  
Bovine Serum Albumin - Toxicity Data: Intraperitoneal TDLO (mouse): 0.2 pph;  
Sodium Azide - Toxicity Data: Oral LDLO (rat): 27 mg/kg; Oral LDLO (woman): 14 mg/kg; Oral LDLO (man): 29 mg/kg;

**Chronic Toxicological Effects:** Bovine Serum Albumin - Investigated as a natural product.  
Sodium Azide - Investigated as an agricultural chemical, drug, mutagen, reproductive effector, and tumorigen.  
Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.  
See actual entry in RTECS for complete information.  
Bovine Serum Albumin RTECS Number: AY9296000  
Sodium Azide RTECS Number: VY8050000

**Carcinogenicity:** NTP? No      IARC Monographs? No      OSHA Regulated? No

| CAS #      | Hazardous Components (Chemical Name)          | NTP  | IARC | ACGIH | OSHA |
|------------|---|------|------|-------|------|
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | n.a. | n.a. | n.a.  | n.a. |
| 77-86-1    | Trizma base                                   | n.a. | n.a. | n.a.  | n.a. |
| 26628-22-8 | Sodium azide                                  | n.a. | n.a. | A4    | n.a. |
| 7647-14-5  | Sodium chloride                               | n.a. | n.a. | n.a.  | n.a. |
| 7646-85-7  | Zinc chloride                                 | n.a. | n.a. | n.a.  | n.a. |
| 7791-18-6  | Magnesium chloride, hexahydrate               | n.a. | n.a. | n.a.  | n.a. |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | n.a. | n.a. | n.a.  | n.a. |
| 7732-18-5  | Water   | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

**12.2 Persistence and Degradability:** No data available.

**12.3 Bioaccumulative Potential:** No data available.

**12.4 Mobility in Soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** No data available.

**12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

**Section 14. Transport Information**

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.

**DOT Hazard Class:**

**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Not dangerous goods.

**UN Number:**

**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

**Section 15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #      | Hazardous Components (Chemical Name)          | S. 302 (EHS) | S. 304 RQ   | S. 313 (TRI)  |
|------------|---|--------------|-------------|---------------|
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | No           | No          | No            |
| 77-86-1    | Trizma base                                   | No           | No          | Yes-Cat. N106 |
| 26628-22-8 | Sodium azide                                  | Yes 500 LB   | Yes 1000 LB | Yes           |
| 7647-14-5  | Sodium chloride                               | No           | No          | No            |
| 7646-85-7  | Zinc chloride                                 | No           | Yes 1000 LB | No            |
| 7791-18-6  | Magnesium chloride, hexahydrate               | No           | No          | No            |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | No           | No          | No            |
| 7732-18-5  | Water   | No           | No          | No            |

| CAS #      | Hazardous Components (Chemical Name)          | Other US EPA or State Lists   |
|------------|---|---|
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 77-86-1    | Trizma base                                   | CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 26628-22-8 | Sodium azide                                  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7647-14-5  | Sodium chloride                               | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7646-85-7  | Zinc chloride                                 | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7791-18-6  | Magnesium chloride, hexahydrate               | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No                      |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7732-18-5  | Water   | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |



# SAFETY DATA SHEET

## Tris Buffer Concentrate (10X)

Revision: 08/25/2017  
Supersedes Revision: 06/21/2016

|                               |   |
|-------------------------------|---|
| <b>Regulatory Information</b> | This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) |
| <b>Statement:</b>             | No.1272/2008.   |

### Section 16. Other Information

|                                      |  |
|--------------------------------------|--|
| <b>Revision Date:</b>                | 08/25/2017   |
| <b>Additional Information About</b>  | No data available.   |
| <b>This Product:</b>                 |  |
| <b>Company Policy or Disclaimer:</b> | DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. |



according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 400089  
**Product Name:** pNPP Substrate Solution
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** None  
**GHS Hazard Phrases:**  
 Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:**  
 No phrases apply.  
**GHS Response Phrases:**  
 No phrases apply.  
**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS # | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No. | GHS Classification |
|--------------------|---|---------------|-------------------------|--------------------|
| NA<br>NA           | pNPP Substrate Solution   | 100.0 %       | NA<br>NA                | No data available. |

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
- In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
- Unsuitable Extinguishing Media:** A solid water stream may be inefficient.
- 5.2 Flammable Properties and Hazards:** No data available.
- Flash Pt:** No data.
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- 5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

- 6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.
- 6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
- 7.2 Precautions To Be Taken in Storing:** Keep container tightly closed. Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

- 8.1 Exposure Parameters:**



Decomposition or  
Byproducts:

### Section 11. Toxicological Information

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

| CAS # | Hazardous Components (Chemical Name) | NTP  | IARC | ACGIH | OSHA |
|-------|--------------------------------------|------|------|-------|------|
| NA    | pNPP Substrate Solution              | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.  
**DOT Hazard Class:**  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Not dangerous goods.  
**UN Number:**  
**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### Section 15. Regulatory Information

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS # | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-------|--------------------------------------|--------------|-----------|--------------|
| NA    | pNPP Substrate Solution              | No           | No        | No           |

| CAS # | Hazardous Components (Chemical Name) | Other US EPA or State Lists                              |
|-------|--------------------------------------|--|
| NA    | pNPP Substrate Solution              | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No |



# SAFETY DATA SHEET

## pNPP Substrate Solution

Revision: 08/25/2017  
Supersedes Revision: 12/08/2016

**Regulatory Information** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)  
**Statement:** No.1272/2008.

### Section 16. Other Information

**Revision Date:** 08/25/2017

**Additional Information About** No data available.

**This Product:**

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 401420  
**Product Name:** 11-ketoetiocholanolone AP tracer
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

**2.1 Classification of the Substance or Mixture:**

**Acute Toxicity: Oral, Category 4**  
**Skin Corrosion/Irritation, Category 3**  
**Aquatic Toxicity (Acute), Category 3**  
**Aquatic Toxicity (Chronic), Category 3**

**2.2 Label Elements:**



**GHS Signal Word:** Warning

**GHS Hazard Phrases:**

H302: Harmful if swallowed.  
H316: Causes mild skin irritation.  
H402: Harmful to aquatic life.  
H412: Harmful to aquatic life with long lasting effects.

**GHS Precaution Phrases:**

P264: Wash {hands} thoroughly after handling.  
P273: Avoid release to the environment.

**GHS Response Phrases:**

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330: Rinse mouth.  
P332+313: If skin irritation occurs, get medical advice/attention.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

|                                 |  |
|---------------------------------|--|
| <b>2.3 Adverse Human Health</b> | Causes mild skin irritation.   |
| <b>Effects and Symptoms:</b>    | Harmful if swallowed.<br>Harmful to aquatic life with long lasting effects.<br>Material may be irritating to the mucous membranes and upper respiratory tract.<br>May be harmful by inhalation or skin absorption.<br>May cause eye or respiratory system irritation.<br>To the best of our knowledge, the toxicological properties have not been thoroughly investigated. |

**Section 3. Composition/Information on Ingredients**

| CAS # /<br>RTECS #      | Hazardous Components (Chemical Name)/<br>REACH Registration No.  | Concentration | EC No./<br>EC Index No.   | GHS Classification  |
|-------------------------|--|---------------|---------------------------|---|
| NA<br>NA                | 11-ketoetiocholanolone AP tracer<br><br>11-ketoetiocholanolone AP tracer<br><br>11 11-ketoetiocholanolone AP tracer<br><br>11-ke | < 0.01 %      | NA<br>NA                  | No data available.  |
| 1185-53-1<br>NA         | Tris[hydroxymethyl]aminomethane hydrochloride  | 38.1 %        | 214-684-5<br>NA           | No data available.  |
| 77-86-1<br>TY2900000    | Trizma base  | 5.5 %         | 201-064-4<br>NA           |   |
| 7647-14-5<br>VZ4725000  | Sodium chloride  | 24.6 %        | 231-598-3<br>NA           | No data available.  |
| 7646-85-7<br>ZH1400000  | Zinc chloride  | 0.1 %         | 231-592-0<br>030-003-00-2 | Acute Tox.(O) 4: H302<br>Skin Corr. 1B: H314<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410<br>Eye Damage 2A: H319 |
| 7786-30-3<br>OM2800000  | Magnesium chloride   | 1.2 %         | 232-094-6<br>NA           | No data available.  |
| 9048-46-8<br>MT6446000  | Bovine Serum Albumin (BSA)   | 29.0 %        | 232-936-2<br>NA           | Acute Tox.(O) 4: H302   |
| 26628-22-8<br>VY8050000 | Sodium azide   | 1.5 %         | 247-852-1<br>011-004-00-7 | Acute Tox.(O) 2: H300<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410   |

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid raising and breathing dust, and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

| CAS #   | Chemical Name | Jurisdiction | Recommended Exposure Limits | Notations |
|---------|---------------|--------------|-----------------------------|-----------|
| 77-86-1 | Trizma base   | ACGIH TLV    | CEIL: 5 mg/m3 (salts)       |           |



|                                    |              |   |                 |
|------------------------------------|--------------|---|-----------------|
| 77-86-1 Trizma base<br>(continued) | France VL    | TWA: 5 mg/m3                            |                 |
|                                    | OSHA PELs    | TWA: 5 mg/m3                            |                 |
|                                    | Britain EH40 | TWA: 5.0 mg/m3                          | Skin Absorption |
| 7646-85-7 Zinc chloride            | ACGIH TLV    | TLV: 1 mg/m3<br>STEL: 2 mg/m3           |                 |
|                                    | France VL    | TWA: 1 mg/m3                            |                 |
|                                    | OSHA PELs    | PEL: 1 mg/m3                            |                 |
|                                    | Britain EH40 | TWA: 1 mg/m3 ()<br>STEL: 2 mg/m3 ()     |                 |
| 26628-22-8 Sodium azide            | ACGIH TLV    | CEIL: 0.29 mg/m3                        |                 |
|                                    | Europe       | TWA: 0.1 mg/m3<br>STEL: 0.3 mg/m3       | Skin Absorption |
|                                    | France VL    | TWA: 0.1 mg/m3<br>STEL: 0.3 mg/m3       |                 |
|                                    | Britain EH40 | TWA: 0.1 mg/m3 ()<br>STEL: 0.3 mg/m3 () | Skin Absorption |

### 8.2 Exposure Controls:

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### 8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Appearance and Odor:** A crystalline solid

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):**

No data.

|                                      |   |
|--------------------------------------|---|
| <b>Specific Gravity (Water = 1):</b> | No data.  |
| <b>Solubility in Water:</b>          | No data.  |
| <b>Solubility Notes:</b>             | ~X mg/ml in PBS (pH 7.2); ~X mg/ml in DMSO & DMF; |
| <b>Octanol/Water Partition</b>       | No data.  |
| <b>Coefficient:</b>                  |   |
| <b>Autoignition Pt:</b>              | No data.  |
| <b>Decomposition Temperature:</b>    | No data.  |
| <b>Viscosity:</b>                    | No data.  |
| <b>9.2 Other Information</b>         |   |
| <b>Percent Volatile:</b>             | No data.  |

**Section 10. Stability and Reactivity**

|   |   |
|---|---|
| <b>10.1 Reactivity:</b>                 | No data available.  |
| <b>10.2 Stability:</b>                  | Unstable [ ] Stable [ X ]   |
| <b>10.3 Stability Note(s):</b>          | Stable if stored in accordance with information listed on the product insert. |
| <b>Polymerization:</b>                  | Will occur [ ] Will not occur [ X ]   |
| <b>10.4 Conditions To Avoid:</b>        | No data available.  |
| <b>10.5 Incompatibility - Materials</b> | strong oxidizing agents   |
| <b>To Avoid:</b>                        |   |
| <b>10.6 Hazardous</b>                   | carbon dioxide  |
| <b>Decomposition or</b>                 | carbon monoxide   |
| <b>Byproducts:</b>                      | nitrogen oxides   |

**Section 11. Toxicological Information**

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

| CAS #      | Hazardous Components (Chemical Name)          | NTP  | IARC | ACGIH | OSHA |
|------------|---|------|------|-------|------|
| NA         | 11-ketoetiocholanolone AP tracer              | n.a. | n.a. | n.a.  | n.a. |
|            | 11-ketoetiocholanolone AP tracer              |      |      |       |      |
|            | 11 11-ketoetiocholanolone AP tracer           |      |      |       |      |
|            | 11-ke   |      |      |       |      |
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | n.a. | n.a. | n.a.  | n.a. |
| 77-86-1    | Trizma base                                   | n.a. | n.a. | n.a.  | n.a. |
| 7647-14-5  | Sodium chloride                               | n.a. | n.a. | n.a.  | n.a. |
| 7646-85-7  | Zinc chloride                                 | n.a. | n.a. | n.a.  | n.a. |
| 7786-30-3  | Magnesium chloride                            | n.a. | n.a. | n.a.  | n.a. |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | n.a. | n.a. | n.a.  | n.a. |
| 26628-22-8 | Sodium azide                                  | n.a. | n.a. | A4    | n.a. |

**Section 12. Ecological Information**

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

**Section 13. Disposal Considerations**

- 13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

**Section 14. Transport Information**

**14.1 LAND TRANSPORT (US DOT):**

- DOT Proper Shipping Name:** Not dangerous goods.  
**DOT Hazard Class:**  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

- ADR/RID Shipping Name:** Not dangerous goods.  
**UN Number:**  
**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

- ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

**Section 15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #     | Hazardous Components (Chemical Name)          | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI)  |
|-----------|---|--------------|-----------|---------------|
| NA        | 11-ketoetiocholanolone AP tracer              | No           | No        | No            |
|           | 11-ketoetiocholanolone AP tracer              |              |           |               |
|           | 11 11-ketoetiocholanolone AP tracer           |              |           |               |
|           | 11-ke   |              |           |               |
| 1185-53-1 | Tris[hydroxymethyl]aminomethane hydrochloride | No           | No        | No            |
| 77-86-1   | Trizma base                                   | No           | No        | Yes-Cat. N106 |
| 7647-14-5 | Sodium chloride                               | No           | No        | No            |



# SAFETY DATA SHEET

## 11-ketoetiocholanolone AP tracer

|            |                            |            |             |               |
|------------|----------------------------|------------|-------------|---------------|
| 7646-85-7  | Zinc chloride              | No         | Yes 1000 LB | Yes-Cat. N982 |
| 7786-30-3  | Magnesium chloride         | No         | No          | No            |
| 9048-46-8  | Bovine Serum Albumin (BSA) | No         | No          | No            |
| 26628-22-8 | Sodium azide               | Yes 500 LB | Yes 1000 LB | Yes           |

| CAS #      | Hazardous Components (Chemical Name)   | Other US EPA or State Lists   |
|------------|--|---|
| NA         | 11-ketoetiocholanolone AP tracer<br><br>11-ketoetiocholanolone AP tracer<br><br>11 11-ketoetiocholanolone AP tracer<br><br>11-ke | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No                      |
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 77-86-1    | Trizma base  | CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 7647-14-5  | Sodium chloride  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7646-85-7  | Zinc chloride  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7786-30-3  | Magnesium chloride   | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 9048-46-8  | Bovine Serum Albumin (BSA)   | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 26628-22-8 | Sodium azide   | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |

**Regulatory Information**

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

**Statement:**

No.1272/2008.

**Section 16. Other Information****Revision Date:**

08/25/2017

**Additional Information About**

No data available.

**This Product:****Company Policy or Disclaimer:**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

## 11-ketoetiocholanolone ELISA Antibody

Revision: 08/25/2017

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

## Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 401422  
**Product Name:** 11-ketoetiocholanolone ELISA Antibody
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
CHEMTREC Outside USA and Canada: +1 (703)527-3887

## Section 2. Hazards Identification

**2.1 Classification of the Substance or Mixture:**

**Acute Toxicity: Oral, Category 4**  
**Skin Corrosion/Irritation, Category 3**  
**Aquatic Toxicity (Acute), Category 3**  
**Aquatic Toxicity (Chronic), Category 3**

**2.2 Label Elements:****GHS Signal Word:** Warning**GHS Hazard Phrases:**

H302: Harmful if swallowed.  
H316: Causes mild skin irritation.  
H402: Harmful to aquatic life.  
H412: Harmful to aquatic life with long lasting effects.

**GHS Precaution Phrases:**

P264: Wash {hands} thoroughly after handling.  
P273: Avoid release to the environment.

**GHS Response Phrases:**

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330: Rinse mouth.  
P332+313: If skin irritation occurs, get medical advice/attention.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

**11-ketoetiocholanolone ELISA Antibody**

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|                                 |  |
|---------------------------------|--|
| <b>2.3 Adverse Human Health</b> | Causes mild skin irritation.   |
| <b>Effects and Symptoms:</b>    | Harmful if swallowed.<br>Harmful to aquatic life with long lasting effects.<br>Material may be irritating to the mucous membranes and upper respiratory tract.<br>May be harmful by inhalation or skin absorption.<br>May cause eye or respiratory system irritation.<br>To the best of our knowledge, the toxicological properties have not been thoroughly investigated. |

### Section 3. Composition/Information on Ingredients

| CAS # / RTECS #         | Hazardous Components (Chemical Name)/ REACH Registration No. | Concentration | EC No./ EC Index No.      | GHS Classification  |
|-------------------------|--|---------------|---------------------------|---|
| NA<br>NA                | Rabbit Anti-11-ketoetiocholanolone Antibody                  | < 0.01 %      | NA<br>NA                  | No data available.  |
| 1185-53-1<br>NA         | Tris[hydroxymethyl]aminomethane hydrochloride                | 38.1 %        | 214-684-5<br>NA           | No data available.  |
| 77-86-1<br>TY2900000    | Trizma base  | 5.5 %         | 201-064-4<br>NA           |   |
| 7647-14-5<br>VZ4725000  | Sodium chloride  | 24.6 %        | 231-598-3<br>NA           | No data available.  |
| 7646-85-7<br>ZH1400000  | Zinc chloride  | 0.1 %         | 231-592-0<br>030-003-00-2 | Acute Tox.(O) 4: H302<br>Skin Corr. 1B: H314<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410<br>Eye Damage 2A: H319 |
| 7786-30-3<br>OM2800000  | Magnesium chloride   | 1.2 %         | 232-094-6<br>NA           | No data available.  |
| 9048-46-8<br>MT6446000  | Bovine Serum Albumin (BSA)                                   | 29.0 %        | 232-936-2<br>NA           | Acute Tox.(O) 4: H302   |
| 26628-22-8<br>VY8050000 | Sodium azide   | 1.5 %         | 247-852-1<br>011-004-00-7 | Acute Tox.(O) 2: H300<br>Aquatic (A) 1: H400<br>Aquatic (C) 1: H410   |

### Section 4. First Aid Measures

|   |   |
|---|---|
| <b>4.1 Description of First Aid Measures:</b> |   |
| <b>In Case of Inhalation:</b>                 | Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  |
| <b>In Case of Skin Contact:</b>               | Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.                             |
| <b>In Case of Eye Contact:</b>                | Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.   |
| <b>In Case of Ingestion:</b>                  | Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel. |

## Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.  
**Media:** Use water spray to cool fire-exposed containers.  
**Unsuitable Extinguishing** A solid water stream may be inefficient.  
**Media:**
- 5.2 Flammable Properties and Hazards:** No data available.  
**Hazards:** No data available.  
**Flash Pt:** No data.  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.
- 5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

- 6.1 Protective Precautions,** Avoid raising and breathing dust, and provide adequate ventilation.  
**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.
- 6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

## Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
- 7.2 Precautions To Be Taken in Storing:** Keep container tightly closed. Store in accordance with information listed on the product insert.

## Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

| CAS #      | Chemical Name | Jurisdiction | Recommended Exposure Limits                                 | Notations       |
|------------|---------------|--------------|---|-----------------|
| 77-86-1    | Trizma base   | ACGIH TLV    | CEIL: 5 mg/m <sup>3</sup> (salts)                           |                 |
|            |               | France VL    | TWA: 5 mg/m <sup>3</sup>                                    |                 |
|            |               | OSHA PELs    | TWA: 5 mg/m <sup>3</sup>                                    |                 |
|            |               | Britain EH40 | TWA: 5.0 mg/m <sup>3</sup>                                  | Skin Absorption |
| 7646-85-7  | Zinc chloride | ACGIH TLV    | TLV: 1 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup>       |                 |
|            |               | France VL    | TWA: 1 mg/m <sup>3</sup>                                    |                 |
|            |               | OSHA PELs    | PEL: 1 mg/m <sup>3</sup>                                    |                 |
|            |               | Britain EH40 | TWA: 1 mg/m <sup>3</sup> ()<br>STEL: 2 mg/m <sup>3</sup> () |                 |
| 26628-22-8 | Sodium azide  | ACGIH TLV    | CEIL: 0.29 mg/m <sup>3</sup>                                |                 |
|            |               | Europe       | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.3 mg/m <sup>3</sup>   | Skin Absorption |
|            |               | France VL    | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.3 mg/m <sup>3</sup>   |                 |

**11-ketoetiocholanolone ELISA Antibody**

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|  |              |   |                 |
|--|--------------|---|-----------------|
| 26628-22-8 Sodium azide<br>(continued) | Britain EH40 | TWA: 0.1 mg/m3 ()<br>STEL: 0.3 mg/m3 () | Skin Absorption |
|--|--------------|---|-----------------|

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Appearance and Odor:** A crystalline solid

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Solubility Notes:** ~X mg/ml in PBS (pH 7.2); ~X mg/ml in DMSO & DMF;

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**

**Percent Volatile:** No data.



### Section 10. Stability and Reactivity

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.
- Polymerization:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid:** No data available.
- 10.5 Incompatibility - Materials To Avoid:** strong oxidizing agents
- 10.6 Hazardous Decomposition or Byproducts:** carbon dioxide  
carbon monoxide  
nitrogen oxides

### Section 11. Toxicological Information

- 11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

| CAS #      | Hazardous Components (Chemical Name)          | NTP  | IARC | ACGIH | OSHA |
|------------|---|------|------|-------|------|
| NA         | Rabbit Anti-11-ketoetiocholanolone Antibody   | n.a. | n.a. | n.a.  | n.a. |
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | n.a. | n.a. | n.a.  | n.a. |
| 77-86-1    | Trizma base                                   | n.a. | n.a. | n.a.  | n.a. |
| 7647-14-5  | Sodium chloride                               | n.a. | n.a. | n.a.  | n.a. |
| 7646-85-7  | Zinc chloride                                 | n.a. | n.a. | n.a.  | n.a. |
| 7786-30-3  | Magnesium chloride                            | n.a. | n.a. | n.a.  | n.a. |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | n.a. | n.a. | n.a.  | n.a. |
| 26628-22-8 | Sodium azide                                  | n.a. | n.a. | A4    | n.a. |

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** No data available.
- 12.6 Other adverse effects:** No data available.

**11-ketoetiocholanolone ELISA Antibody**

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**Section 13. Disposal Considerations**
**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

**Section 14. Transport Information**
**14.1 LAND TRANSPORT (US DOT):**
**DOT Proper Shipping Name:** Not dangerous goods.

**DOT Hazard Class:**
**UN/NA Number:**
**14.1 LAND TRANSPORT (European ADR/RID):**
**ADR/RID Shipping Name:** Not dangerous goods.

**UN Number:**
**Hazard Class:**
**14.3 AIR TRANSPORT (ICAO/IATA):**
**ICAO/IATA Shipping Name:** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

**Section 15. Regulatory Information**
**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #      | Hazardous Components (Chemical Name)          | S. 302 (EHS) | S. 304 RQ   | S. 313 (TRI)  |
|------------|---|--------------|-------------|---------------|
| NA         | Rabbit Anti-11-ketoetiocholanolone Antibody   | No           | No          | No            |
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | No           | No          | No            |
| 77-86-1    | Trizma base                                   | No           | No          | Yes-Cat. N106 |
| 7647-14-5  | Sodium chloride                               | No           | No          | No            |
| 7646-85-7  | Zinc chloride                                 | No           | Yes 1000 LB | Yes-Cat. N982 |
| 7786-30-3  | Magnesium chloride                            | No           | No          | No            |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | No           | No          | No            |
| 26628-22-8 | Sodium azide                                  | Yes 500 LB   | Yes 1000 LB | Yes           |

| CAS #      | Hazardous Components (Chemical Name)          | Other US EPA or State Lists   |
|------------|---|---|
| NA         | Rabbit Anti-11-ketoetiocholanolone Antibody   | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No                      |
| 1185-53-1  | Tris[hydroxymethyl]aminomethane hydrochloride | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 77-86-1    | Trizma base                                   | CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 7647-14-5  | Sodium chloride                               | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7646-85-7  | Zinc chloride                                 | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 7786-30-3  | Magnesium chloride                            | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 9048-46-8  | Bovine Serum Albumin (BSA)                    | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |
| 26628-22-8 | Sodium azide                                  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No         |

## 11-ketoetiocholanolone ELISA Antibody

Revision: 08/25/2017

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

**Section 16. Other Information**

**Revision Date:** 08/25/2017

**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

**11-ketoetiocholanolone ELISA Standard**

Revision: 08/25/2017

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

- 1.1 Product Code:** 401424  
**Product Name:** 11-ketoetiocholanolone ELISA Standard
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Section 2. Hazards Identification**

- 2.1 Classification of the Substance or Mixture:**  
**Flammable Liquids, Category 2**  
**Acute Toxicity: Inhalation, Category 3**  
**Acute Toxicity: Oral, Category 3**  
**Acute Toxicity: Skin, Category 3**  
**Specific Target Organ Toxicity (single exposure), Category 1**

**2.2 Label Elements:**

**GHS Signal Word:** **Danger**
**GHS Hazard Phrases:**

H225: Highly flammable liquid and vapor.  
 H301: Toxic if swallowed.  
 H311: Toxic in contact with skin.  
 H331: Toxic if inhaled.  
 H370: Causes damage to organs.

**GHS Precaution Phrases:**

P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.  
 P260: Do not breathe {dust/fume/gas/mist/vapors/spray}.  
 P264: Wash {hands} thoroughly after handling.  
 P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

**GHS Response Phrases:**

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P302+352: IF ON SKIN: Wash with plenty of soap and water.  
 P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P307+311: IF exposed: Call a POISON CENTER or doctor/physician.  
 P311: Call a POISON CENTER or doctor/physician.

P330: Rinse mouth.  
 P361: Remove/Take off immediately all contaminated clothing.  
 P363: Wash contaminated clothing before reuse.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

**2.3 Adverse Human Health** Causes damage to organs {eyes}.

**Effects and Symptoms:** Material may be irritating to the mucous membranes and upper respiratory tract.  
 May be fatal or cause blindness if swallowed.  
 May cause eye, skin, or respiratory system irritation.  
 Toxic if inhaled, swallowed, or in contact with skin.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

| CAS # /<br>RTECS #   | Hazardous Components (Chemical Name)/<br>REACH Registration No. | Concentration | EC No./<br>EC Index No.   | GHS Classification   |
|----------------------|---|---------------|---------------------------|--|
| 739-27-5<br>NA       | 11-ketoetiocholanolone ELISA Standard                           | 0.01 %        | NA<br>NA                  | No data available.   |
| 67-56-1<br>PC1400000 | Methanol  | 99.99 %       | 200-659-6<br>603-001-00-X | Flam. Liq. 2: H225<br>Acute Tox.(O) 3: H301<br>Acute Tox.(D) 3: H311<br>Acute Tox.(I) 3: H331<br>STOT (SE) 1: H370 |

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

**4.2 Important Symptoms and Effects, Both Acute and Delayed:** Overexposure may cause: confusion, dermatitis, headache, drowsiness, dizziness, gastrointestinal disturbance, optic nerve damage (blindness), nausea, unconsciousness, vomiting, visual disturbance, weakness.  
 May cause convulsions.  
 Once methanol is absorbed into the body, it is very slowly eliminated.  
 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

### Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.  
**Media:** Use water spray to cool fire-exposed containers.  
**Unsuitable Extinguishing** A solid water stream may be inefficient.  
**Media:**
- 5.2 Flammable Properties and Hazards:** Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.  
 Container explosion may occur under fire conditions.  
 Emits toxic fumes under fire conditions.  
 Sensitive to static discharge.  
 Vapors can travel to a source of ignition and flash back.  
 No data available.  
**Flash Pt:** 11.00 C Method Used: Closed Cup  
**Explosive Limits:** LEL: 6.0% at 25.0 C UEL: 36.0% at 25.0 C  
**Autoignition Pt:** 385.00 C
- 5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
 Note: Flammable as diluted in methanol.

### Section 6. Accidental Release Measures

- 6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.  
**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.
- 6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.  
 Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Avoid prolonged or repeated exposure.  
 Keep away from sources of ignition.  
 Take precautionary measures against static discharge.
- 7.2 Precautions To Be Taken in Storing:** Keep away from heat, sparks, and flame.  
 Keep container tightly closed.  
 Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

| CAS #   | Chemical Name | Jurisdiction | Recommended Exposure Limits                             | Notations       |
|---------|---------------|--------------|---|-----------------|
| 67-56-1 | Methanol      | ACGIH TLV    | TLV: 200 ppm<br>STEL: 250 ppm                           |                 |
|         |               | Europe       | TWA: 260 mg/m3 (200 ppm)                                | Skin Absorption |
|         |               | France VL    | TWA: 260 mg/m3 (200 ppm)<br>STEL: 1300 mg/m3 (1000 ppm) |                 |
|         |               | OSHA PELs    | PEL: 200 ppm  |                 |
|         |               | Britain EH40 | TWA: 266 mg/m3 (200 ppm)<br>STEL: 333 mg/m3 (250 ppm)   | Skin Absorption |

|   |   |
|---|---|
| <b>8.2 Exposure Controls:</b>                         |   |
| <b>8.2.1 Engineering Controls (Ventilation etc.):</b> | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.  |
| <b>8.2.2 Personal protection equipment:</b>           |   |
| <b>Eye Protection:</b>                                | Safety glasses  |
| <b>Protective Gloves:</b>                             | Compatible chemical-resistant gloves  |
| <b>Other Protective Clothing:</b>                     | Lab coat  |
| <b>Respiratory Equipment (Specify Type):</b>          | NIOSH approved respirator, as conditions warrant.   |
| <b>Work/Hygienic/Maintenance Practices:</b>           | Do not take internally.<br>Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.<br>Wash thoroughly after handling.<br>No data available. |

## Section 9. Physical and Chemical Properties

|  |  |
|--|--|
| <b>9.1 Information on Basic Physical and Chemical Properties</b> |  |
| <b>Physical States:</b>  | <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid |
| <b>Appearance and Odor:</b>                                      | Solution   |
| <b>pH:</b>   | No data.   |
| <b>Melting Point:</b>  | No data.   |
| <b>Boiling Point:</b>  | No data.   |
| <b>Flash Pt:</b>   | 11.00 C    Method Used: Closed Cup   |
| <b>Evaporation Rate:</b>   | No data.   |
| <b>Flammability (solid, gas):</b>                                | No data available.   |
| <b>Explosive Limits:</b>   | LEL: 6.0%    at 25.0 C    UEL: 36.0%    at 25.0 C  |
| <b>Vapor Pressure (vs. Air or mm Hg):</b>                        | 96 MM_HG    at 20.0 C  |
| <b>Vapor Density (vs. Air = 1):</b>                              | No data.   |
| <b>Specific Gravity (Water = 1):</b>                             | No data.   |
| <b>Solubility in Water:</b>                                      | No data.   |
| <b>Octanol/Water Partition Coefficient:</b>                      | No data.   |
| <b>Autoignition Pt:</b>  | 385.00 C   |
| <b>Decomposition Temperature:</b>                                | No data.   |
| <b>Viscosity:</b>  | No data.   |
| <b>9.2 Other Information</b>                                     |  |
| <b>Percent Volatile:</b>   | No data.   |

## Section 10. Stability and Reactivity

|   |  |
|---|--|
| <b>10.1 Reactivity:</b>                           | No data available.   |
| <b>10.2 Stability:</b>                            | Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>           |
| <b>10.3 Stability Note(s):</b>                    | Stable if stored in accordance with information listed on the product insert.          |
| <b>Polymerization:</b>                            | Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/> |
| <b>10.4 Conditions To Avoid:</b>                  | heat, flames and sparks  |
| <b>10.5 Incompatibility - Materials To Avoid:</b> | acids<br>acid anhydrides<br>acid chlorides<br>alkali metals                            |

|  |  |
|--|--|
| <b>10.6 Hazardous Decomposition or Byproducts:</b> | oxidizing agents<br>reducing agents<br>carbon dioxide<br>carbon monoxide |
|--|--|

### Section 11. Toxicological Information

|   |  |
|---|--|
| <b>11.1 Information on Toxicological Effects:</b> | The toxicological effects of this product have not been thoroughly studied.<br>Methanol - Toxicity Data: Oral LD50 (rat): 5,600 mg/kg; Oral LD50 (rabbit): 14,200 mg/kg; Inhalation LC50 (rat): 64,000 ppm (4h); Inhalation LC50 (mouse): 61,100 ppm (134 m); Skin LD50 (rabbit): 15,800 mg/kg; Oral LDLO (human): 143 mg/kg;<br>Methanol - Irritation Data: Skin (rabbit): 20 mg (24h) moderate; Eyes (rabbit): 40 mg moderate; Eyes (rabbit): 100 mg (24h) moderate; |
| <b>Chronic Toxicological Effects:</b>             | Methanol - Investigated as a mutagen and reproductive effector.<br>Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.<br>See actual entry in RTECS for complete information.<br>Methanol RTECS Number: PC1400000   |
| <b>Carcinogenicity:</b>                           | NTP? No      IARC Monographs? No      OSHA Regulated? No   |

| CAS #    | Hazardous Components (Chemical Name)  | NTP  | IARC | ACGIH | OSHA |
|----------|---------------------------------------|------|------|-------|------|
| 739-27-5 | 11-ketoetiocholanolone ELISA Standard | n.a. | n.a. | n.a.  | n.a. |
| 67-56-1  | Methanol                              | n.a. | n.a. | n.a.  | n.a. |

### Section 12. Ecological Information

|   |  |
|---|--|
| <b>12.1 Toxicity:</b>                           | Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution. |
| <b>12.2 Persistence and Degradability:</b>      | No data available.   |
| <b>12.3 Bioaccumulative Potential:</b>          | No data available.   |
| <b>12.4 Mobility in Soil:</b>                   | No data available.   |
| <b>12.5 Results of PBT and vPvB assessment:</b> | No data available.   |
| <b>12.6 Other adverse effects:</b>              | No data available.   |

### Section 13. Disposal Considerations

|                                    |   |
|------------------------------------|---|
| <b>13.1 Waste Disposal Method:</b> | Dispose in accordance with local, state, and federal regulations. |
|------------------------------------|---|

### Section 14. Transport Information

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| <b>14.1 LAND TRANSPORT (US DOT):</b> |                                       |
| <b>DOT Proper Shipping Name:</b>     | Methanol Solution                     |
| <b>DOT Hazard Class:</b>             | 3 (6.1)      FLAMMABLE LIQUID, POISON |
| <b>UN/NA Number:</b>                 | 1230 <b>Packing Group:</b> II         |







## 11-ketoetiocholanolone ELISA Standard

Revision: 08/25/2017

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Methanol Solution  
**UN Number:** 1230 **Packing Group:** II  
**Hazard Class:** 3 (6.1) - FLAMMABLE LIQUID,  
 POISON

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Methanol Solution  
**UN Number:** 1230 **Packing Group:** II  
**Hazard Class:** 3 (6.1) - FLAMMABLE LIQUID, **IATA Classification:** 3, 6.1  
 POISON

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.  
 When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10.  
 Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

**Section 15. Regulatory Information****EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #    | Hazardous Components (Chemical Name)  | S. 302 (EHS) | S. 304 RQ   | S. 313 (TRI) |
|----------|---------------------------------------|--------------|-------------|--------------|
| 739-27-5 | 11-ketoetiocholanolone ELISA Standard | No           | No          | No           |
| 67-56-1  | Methanol                              | No           | Yes 5000 LB | Yes          |

| CAS #    | Hazardous Components (Chemical Name)  | Other US EPA or State Lists   |
|----------|---------------------------------------|---|
| 739-27-5 | 11-ketoetiocholanolone ELISA Standard | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No                        |
| 67-56-1  | Methanol                              | CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: Yes: RDTox. |

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

**Section 16. Other Information**

**Revision Date:** 08/25/2017

**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.