

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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	EIA Antiserum Dye	100.0 %	NA 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.

**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 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:**

**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: 03/26/2018  
Supersedes Revision: 01/23/2018

### 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:** 03/26/2018

**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:** 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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
1185-53-1 NA	Tris[hydroxymethyl]aminomethane hydrochloride	13.2 %	214-684-5 NA	No data available.
77-86-1 TY2900000	Trizma base	1.9 %	201-064-4 NA	
26628-22-8 VY8050000	Sodium azide	0.5 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7647-14-5 VZ4725000	Sodium chloride	8.4 %	231-598-3 NA	No data available.
7646-85-7 ZH1400000	Zinc chloride	0.02 %	231-592-0 030-003-00-2	Acute Tox.(O) 4: H302 Skin Corr. 1B: H314 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7791-18-6 OM2975000	Magnesium chloride, hexahydrate	0.4 %	616-575-1 NA	No data available.
9048-46-8 AY9296000	Bovine Serum Albumin (BSA)	5.0 %	232-936-2 NA	Acute Tox.(O) 4: H302
7732-18-5 ZC0110000	Water	70.58 %	231-791-2 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 STEL: 0.3 mg/m3	Skin Absorption
		France VL	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	
		Britain EH40	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	Skin Absorption
7646-85-7	Zinc chloride	ACGIH TLV	TLV: 1 mg/m3 STEL: 2 mg/m3	
		France VL	TWA: 1 mg/m3	
		OSHA PELs	PEL: 1 mg/m3	
		Britain EH40	TWA: 1 mg/m3 () 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**

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	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
<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.

**9.2 Other Information****Percent Volatile:** 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>	bases oxidizing agents
<b>10.6 Hazardous Decomposition or Byproducts:</b>	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.



# SAFETY DATA SHEET

## Tris Buffer Concentrate (10X)

### 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	Yes-Cat. N982
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: 03/26/2018  
Supersedes Revision: 08/25/2017

**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:** 03/26/2018

**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.



# SAFETY DATA SHEET

## pNPP Substrate Solution

Revision: 03/26/2018  
Supersedes 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:** 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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	pNPP Substrate Solution	100.0 %	NA 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.

**Media:** 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.

**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:**



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: 03/26/2018  
Supersedes Revision: 08/25/2017

**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:** 03/26/2018

**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:** 400160  
**Product Name:** Pregnanediol-3-Glucuronide 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**  
**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 may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation 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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	Pregnanediol-3-glucuronide-Alkaline Phosphatase	< 0.01 %	NA NA	No data available.
1185-53-1 NA	Tris[hydroxymethyl]aminomethane hydrochloride	12.07 %	214-684-5 NA	No data available.
77-86-1 TY2900000	Trizma base	1.7 %	201-064-4 NA	
7647-14-5 VZ4725000	Sodium chloride	7.7 %	231-598-3 NA	No data available.
7646-85-7 ZH1400000	Zinc chloride	0.02 %	231-592-0 030-003-00-2	Acute Tox.(O) 4: H302 Skin Corr. 1B: H314 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7786-30-3 OM2800000	Magnesium chloride	0.4 %	232-094-6 NA	No data available.
9048-46-8 AY9296000	Bovine Serum Albumin (BSA)	9.1 %	232-936-2 NA	Acute Tox.(O) 4: H302
6138-23-4 LZ5776547	D-(+)-Trehalose, Dihydrate	45.7 %	612-140-5 NA	No data available.
69-65-8 OP2060000	D-Mannitol	22.8 %	200-711-8 NA	No data available.
26628-22-8 VY8050000	Sodium azide	0.5 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410

### 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 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, 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:**

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> 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> () 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> STEL: 0.3 mg/m <sup>3</sup>	Skin Absorption
		France VL	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	

26628-22-8 Sodium azide (continued)	Britain EH40	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	Skin Absorption
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### 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 lyophilized 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.

**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:** No data available.
- 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.
- Bovine Serum Albumin - Toxicity Data: Intraperitoneal Rodent - mouse 0.2 pph;  
 Sodium azide - Toxicity Data: Oral LD50 (rat): 27 mg/kg; Oral TDLO (woman): 3 mg/kg;  
 Intraperitoneal LDLO (rat): 30 mg/kg; Subcutaneous LD50 (rat): 45100 ug/kg;
- Chronic Toxicological Effects:** Sodium azide - Investigated as an agricultural chemical, drug, mutagen, reproductive effector, and tumorigen.
- Bovine Serum Albumin - Investigated as a natural product
- 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

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
NA	Pregnanediol-3-glucuronide-Alkaline Phosphatase	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.
6138-23-4	D-(+)-Trehalose, Dihydrate	n.a.	n.a.	n.a.	n.a.
69-65-8	D-Mannitol	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	Pregnanediol-3-glucuronide-Alkaline Phosphatase	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
6138-23-4	D-(+)-Trehalose, Dihydrate	No	No	No
69-65-8	D-Mannitol	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	Pregnanediol-3-glucuronide-Alkaline Phosphatase	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 -



# SAFETY DATA SHEET

## Pregnanediol-3-Glucuronide AP Tracer

		Inventory; CA PROP.65: No
6138-23-4	D-(+)-Trehalose, Dihydrate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
69-65-8	D-Mannitol	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 Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 06/11/2018

**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:** 400162  
**Product Name:** Pregnanediol-3-Glucuronide ELISA Antiserum
- 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 3**  
**Skin Corrosion/Irritation, Category 3**  
**Aquatic Toxicity (Acute), Category 3**  
**Aquatic Toxicity (Chronic), Category 3**

**2.2 Label Elements:**



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

**GHS Hazard Phrases:**

H301: Toxic 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+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
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>	<p>Harmful to aquatic life with long lasting effects.</p> <p>Material may be irritating to the mucous membranes and upper respiratory tract.</p> <p>May be harmful by inhalation or skin absorption.</p> <p>May cause eye or respiratory system irritation.</p> <p>Toxic if swallowed.</p> <p>To the best of our knowledge, the toxicological properties have not been thoroughly investigated.</p>

### Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	Rabbit anti-pregnanediol-3-glucuronide Antibody	< 0.01 %	NA NA	No data available.
1185-53-1 NA	Tris[hydroxymethyl]aminomethane hydrochloride	44.7 %	214-684-5 NA	No data available.
77-86-1 TY2900000	Trizma base	6.4 %	201-064-4 NA	
7647-14-5 VZ4725000	Sodium chloride	28.7 %	231-598-3 NA	No data available.
7646-85-7 ZH1400000	Zinc chloride	0.1 %	231-592-0 030-003-00-2	Acute Tox.(O) 4: H302 Skin Corr. 1B: H314 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7786-30-3 OM2800000	Magnesium chloride	1.4 %	232-094-6 NA	No data available.
9048-46-8 AY9296000	Bovine Serum Albumin (BSA)	17.0 %	232-936-2 NA	Acute Tox.(O) 4: H302
26628-22-8 VY8050000	Sodium azide	1.69 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 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> 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> () 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> STEL: 0.3 mg/m <sup>3</sup>	Skin Absorption
		France VL	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	

26628-22-8 Sodium azide (continued)	Britain EH40	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	Skin Absorption
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### 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 lyophilized 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.

**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:** No data available.
- 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.
- Chronic Toxicological Effects:** Bovine Serum Albumin - Toxicity Data: Intraperitoneal Rodent - mouse 0.2 pph;  
 Sodium azide - Toxicity Data: Oral LD50 (rat): 27 mg/kg; Oral TDLO (woman): 3 mg/kg;  
 Intraperitoneal LDLO (rat): 30 mg/kg; Subcutaneous LD50 (rat): 45100 ug/kg;  
 Sodium azide - Investigated as an agricultural chemical, drug, mutagen, reproductive effector, and tumorigen.  
 Bovine Serum Albumin - Investigated as a natural product  
 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

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
NA	Rabbit anti-pregnanediol-3-glucuronide 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.

### 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:** Toxic solid, organic, n.o.s. (Pregnanediol-3-Glucuronide ELISA Antiserum)  
**DOT Hazard Class:** 6.1 POISON  
**UN/NA Number:** UN2811 **Packing Group:** III



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

**ADR/RID Shipping Name:** Toxic solid, organic, n.o.s. (Pregnanediol-3-Glucuronide ELISA Antiserum)  
**UN Number:** 2811 **Packing Group:** III  
**Hazard Class:** 6.1 - POISON

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

**ICAO/IATA Shipping Name:** Toxic solid, organic, n.o.s. (Pregnanediol-3-Glucuronide ELISA Antiserum)  
**UN Number:** 2811 **Packing Group:** III  
**Hazard Class:** 6.1 - POISON **IATA Classification:** 6.1

**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)
NA	Rabbit anti-pregnanediol-3-glucuronide 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-pregnanediol-3-glucuronide 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 -



# SAFETY DATA SHEET

## Pregnanediol-3-Glucuronide ELISA Antiserum

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

### Section 16. Other Information

**Revision Date:** 06/11/2018

**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:** 400174  
**Product Name:** Pregnanediol-3-Glucuronide 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
- 2.2 Label Elements:**
- 
- GHS Signal Word:** **Danger**
- GHS Hazard Phrases:**  
 H225: Highly flammable liquid and vapor.
- GHS Precaution Phrases:**  
 P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.  
 P280: Wear {protective gloves/protective clothing/eye protection/face protection}.
- GHS Response Phrases:**  
 P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
1852-49-9 NA	5B-Pregnane-3A-20A-Diol Glucuronide Crystalline	< 0.001 %	NA NA	No data available.
68-12-2 LQ2100000	N,N-Dimethylformamide	0.06 %	200-679-5 616-001-00-X	Acute Tox.(D) 4: H312 Eye Damage 2: H319 Acute Tox.(I) 4: H332



				Toxic Repro. 1B: H360
64-17-5 KQ6300000	Ethyl alcohol	99.939 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225

### 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.

**4.2 Important Symptoms and Effects, Both Acute and Delayed:** May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.

### 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.

**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:** 14.00 C Method Used: Closed Cup

**Explosive Limits:** LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C

**Autoignition Pt:** 363.00 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 ethanol.

### 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.
- Other Precautions:** Hygroscopic

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
68-12-2	N,N-Dimethylformamide	ACGIH TLV	TLV: 10 ppm	
		France VL	TWA: 30 mg/m3 (10 ppm)	
		OSHA PELs	PEL: 10 ppm	
		Britain EH40	TWA: 30 mg/m3 (10 ppm) STEL: 61 mg/m3 (20 ppm)	Skin Absorption
64-17-5	Ethyl alcohol	ACGIH TLV	TLV: 1000 ppm STEL: 1000 ppm	
		France VL	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	

**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     Solid

**Appearance and Odor:**            A liquid

**pH:**                                    No data.

**Melting Point:**                    No data.

**Boiling Point:**                    No data.

**Flash Pt:**                            14.00 C    Method Used: Closed Cup

**Evaporation Rate:**                No data.

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

**Explosive Limits:**                LEL: 3.3%      at 25.0 C      UEL: 19.0%      at 25.0 C

**Vapor Pressure (vs. Air or mm Hg):**    43 MM\_HG at 20.0 C

**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:**                    363.00 C

**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:**        heat, flames, and sparks

**10.5 Incompatibility - Materials To Avoid:**        alkali metals  
ammonia  
peroxides  
strong oxidizing agents

**10.6 Hazardous Decomposition or Byproducts:**        carbon dioxide  
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. Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg; Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO (human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m <sup>3</sup> (20m); Inhalation LC50 (rat): 5,900 mg/m <sup>3</sup> (6h); Inhalation LCLO (mouse): 29,300 ppm (7h); Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderate;
<b>Chronic Toxicological Effects:</b>	Ethanol - 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. Ethanol RTECS Number: KQ6300000
<b>Carcinogenicity:</b>	NTP? No      IARC Monographs? No      OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
1852-49-9	5B-Pregnane-3A-20A-Diol Glucuronide Crystalline	n.a.	n.a.	n.a.	n.a.
68-12-2	N,N-Dimethylformamide	n.a.	3	A4	n.a.
64-17-5	Ethyl alcohol	n.a.	1	A4	n.a.

### Section 12. Ecological Information

<b>12.1 Toxicity:</b>	Avoid release into the environment. 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.
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### Section 14. Transport Information

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

<b>DOT Proper Shipping Name:</b>	Ethyl Alcohol Solution		
<b>DOT Hazard Class:</b>	3	FLAMMABLE LIQUID	
<b>UN/NA Number:</b>	1170	<b>Packing Group:</b>	II


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

<b>ADR/RID Shipping Name:</b>	Ethyl Alcohol Solution		
<b>UN Number:</b>	1170	<b>Packing Group:</b>	II
<b>Hazard Class:</b>	3 - FLAMMABLE LIQUID		

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

<b>ICAO/IATA Shipping Name:</b>	Ethyl Alcohol Solution		
<b>UN Number:</b>	1170	<b>Packing Group:</b>	II
<b>Hazard Class:</b>	3 - FLAMMABLE LIQUID	<b>IATA Classification:</b>	3

**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)
1852-49-9	5B-Pregnane-3A-20A-Diol Glucuronide Crystalline	No	No	No
68-12-2	N,N-Dimethylformamide	No	Yes 100 LB	Yes
64-17-5	Ethyl alcohol	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
1852-49-9	5B-Pregnane-3A-20A-Diol Glucuronide Crystalline	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
68-12-2	N,N-Dimethylformamide	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory, 8D TERM; CA PROP.65: No
64-17-5	Ethyl alcohol	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:** 06/11/2018

**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:** 411007  
**Product Name:** AP Wash Buffer Concentrate (150X)
- 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 irritation.  
 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
1185-53-1 NA	Tris[hydroxymethyl]aminomethane hydrochloride	19.83 %	214-684-5 NA	No data available.
77-86-1 TY2900000	Trizma base	2.91 %	201-064-4 NA	
9005-64-5 TR7400000	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	7.5 %	500-018-3 NA	No data available.
7732-18-5 ZC0110000	Water	69.76 %	231-791-2 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.

**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 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.

**Other Precautions:** Hygroscopic.

### 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

**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 clear 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.



<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 Decomposition or Byproducts:</b>	carbon dioxide carbon monoxide nitrogen oxides

**Section 11. Toxicological Information**

<b>11.1 Information on Toxicological Effects:</b>	The toxicological effects of this product have not been thoroughly studied.
<b>Carcinogenicity:</b>	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.
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	n.a.	n.a.	n.a.	n.a.
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.

**Section 12. Ecological Information**

<b>12.1 Toxicity:</b>	Avoid release into the environment. 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.



# SAFETY DATA SHEET

## AP Wash Buffer Concentrate (150X)

Revision: 03/26/2018  
Supersedes Revision: 06/16/2017

### 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
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	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
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	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:** 03/26/2018

**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.



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

**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:**



# SAFETY DATA SHEET

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

<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. 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

<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)

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  
Plate (strip or solid)**

Revision: 03/26/2018

Supersedes Revision: 01/23/2018

<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>	03/26/2018
<b>Additional Information About This Product:</b>	No data available.
<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:** 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 # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	EIA Tracer Dye	100.0 %	NA 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** 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:**

<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. 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**

<b>Physical States:</b>	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Solid
<b>Appearance and Odor:</b>	A red liquid		
<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.		

**9.2 Other Information**

**Percent Volatile:** 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>	No data available.
<b>10.5 Incompatibility - Materials To Avoid:</b>	organic materials strong acids strong oxidizing agents



# SAFETY DATA SHEET

## EIA Tracer Dye

**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: 03/26/2018  
Supersedes Revision: 01/23/2018

### 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:** 03/26/2018

**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.