

# Product Information



## Precoated EIA 96-Well Plate (solid or strip) Item No. 400004, 400005, 400006, 400007, 400008, or 400009

### COMMENTS:

Each plate is coated with antibody. This Safety Data Sheet (SDS) is for the antibody only. An SDS on this material is not required as this substance is a naturally occurring animal product. However, we do recommend the following minimum precautions when using this substance:

- Do NOT get in eyes, on skin, or on clothing.
- Do NOT take internally.
- Wear protective gloves and safety glasses.
- Keep container closed.
- Store at correct temperature.
- Do NOT reuse this container.
- Do NOT release this material to the environment; dispose of by incineration in accordance with federal, state, and local regulations.
- Wash thoroughly after handling.

### WARNING:

**Not for human or animal disease diagnostics or therapeutic drug use.**

*The above information is believed to be correct but should only be used as a guide. Cayman Chemical disclaims any express or implied warranty as to the accuracy of the above information and shall not be held liable for any direct, incidental, or consequential damages resulting from reliance on the above information.*

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Revision Date: 12/21/2012  
Supercedes Revision: 08/27/2010

### Cayman Chemical

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# SAFETY DATA SHEET

## Polysorbate 20

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Revision: 09/13/2012  
Supersedes Revision: 05/01/2012

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

**Product Code:** 400035  
**Product Name:** Polysorbate 20  
**Synonyms:** Tween 20™;  
**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887  
**Information:** Cayman Chemical Company +1 (734)971-3335  
**Web site address:** www.caymanchem.com

### 2. Hazards Identification

**GHS Hazard Phrases:** Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:** No data available.  
**GHS Response Phrases:** No data available.  
**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.  
**Route(s) of Entry:** Inhalation? Yes    Skin? Yes    Eyes? Yes    Ingestion? Yes    Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
**Target Organs:** No data available.  
**LD 50 / LC 50:** Please refer to Section 11.  
**Signs and Symptoms Of Exposure:** To the best of our knowledge, the toxicological properties have not been thoroughly investigated.  
**Medical Conditions Generally Aggravated By Exposure:** No data available.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	100.0 %	500-018-3	No phrases apply.	TR7400000

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

**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.

<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.
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

### 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	No data available.
<b>Flash Pt:</b>	No data.
<b>Autoignition Pt:</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. <span style="margin-left: 150px;">UEL: No data.</span>
<b>Hazardous Combustion Products:</b>	No data available.
<b>Fire Fighting Instructions:</b>	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.

### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	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).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	No data.	No data.	No data.

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<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.
<b>Environmental Exposure Controls:</b>	No data available.

### 9. Physical and Chemical Properties

**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 clear, yellow viscous liquid
<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>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>Autoignition Pt:</b>	No data.
<b>Explosive Properties:</b>	No data available.
<b>Oxidizing Properties:</b>	No data available.
<b>Other Information</b>	
<b>Percent Volatile:</b>	N.A.

### 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	No data available.
<b>Polymerization:</b>	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
<b>Incompatibility - Materials To Avoid:</b>	strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	carbon dioxide carbon monoxide

### 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this product have not been thoroughly studied.  Polysorbate 20 - Toxicity Data: Oral LD50 (rat): 36.7 ml/kg; Oral LD50 (hamster): 18 ml/kg; Oral LD50 (mouse): >33 g/kg; Irritation Data: Skin (human): 15 mg/3D mild;
<b>Chronic Toxicological Effects:</b>	Polysorbate 20 - Investigated as a tumorigen and reproductive effector. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. Polysorbate 20 RTECS Number: TR7400000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	n.a.	n.a.	n.a.	n.a.



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## Polysorbate 20

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

### 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

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

### 14. Transport Information

**LAND TRANSPORT (US DOT)**

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

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

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

**AIR TRANSPORT (ICAO/IATA)**

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

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

### 15. Regulatory Information

**European Community Hazard Symbol codes**

No data available.

**European Community Risk and Safety Phrases**

S24/25 - Avoid contact with skin and eyes.

S37/39 - Wear suitable gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Polyoxyethylene (20) sorbitan monolaurate (Tween 20™)	9005-64-5	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

### 16. Other Information

**Revision Date:** 09/13/2012

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

**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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required

Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108



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

**Product Code:** 400040

**Product Name:** EIA Tracer Dye

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Serious Eye Damage/Eye Irritation, Category 2A	Exclamation point	Warning	Causes serious eye irritation
Skin Corrosion/Irritation, Category 2	Exclamation point	Warning	Causes skin irritation

**GHS Hazard Phrases:**  
 H319: Causes serious eye irritation  
 H315: Causes skin irritation.

**GHS Precaution Phrases:**  
 P264: Wash hands thoroughly after handling.  
 P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.

**GHS Response Phrases:**  
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+313: If eye irritation persists, get medical advice/attention.  
 P302+352: IF ON SKIN: Wash with plenty of soap and water.  
 P332+313: If skin irritation occurs, get medical advice/attention.  
 P362: Take off contaminated clothing and wash before re-use.

**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.

**Route(s) of Entry:**  
 Inhalation? Yes    Skin? Yes    Eyes? Yes    Ingestion? Yes    Other: Injection

**Potential Health Effects (Acute and Chronic):**  
 Irritating to eyes and skin.  
 Material may be irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 May cause burns.  
 May cause respiratory system irritation.  
 May temporarily stain skin.

**Target Organs:**  
 No data available.

**Signs and Symptoms Of Exposure:**  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions Generally Aggravated By Exposure:**  
 No data available.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases
1. EIA Tracer Dye	NA	100.0 %	NA	R36/38

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

<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 20 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 20 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.
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

### 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	No data available.
<b>Flash Pt:</b>	No data.
<b>Autoignition Pt:</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. <span style="margin-left: 100px;">UEL: No data.</span>
<b>Hazardous Combustion Products:</b>	No data available.
<b>Fire Fighting Instructions:</b>	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.

### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.







# SAFETY DATA SHEET

## EIA Tracer Dye

**Hazardous Decomposition Or Byproducts:** No data available.

### 11. Toxicological Information

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

**Chronic Toxicological Effects:** No data available.

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

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

### 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
 Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

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

### 14. Transport Information

**Globally Harmonized System of Classification and Labelling**

Serious Eye Damage/Eye Irritation, Category 2A - Warning! Causes serious eye irritation

Skin Corrosion/Irritation, Category 2 - Warning! Causes skin irritation

**LAND TRANSPORT (US DOT)**
**DOT Proper Shipping Name** Not dangerous goods.

**LAND TRANSPORT (European ADR/RID)**
**ADR/RID Shipping Name** Not dangerous goods.

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

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

### 15. Regulatory Information

**European Community Hazard Symbol codes** Xi: Irritant

**European Community Risk and Safety Phrases**

R36/38 - Irritating to eyes and skin.

S24/25 - Avoid contact with skin and eyes.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. EIA Tracer Dye	NA	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. EIA Tracer Dye	NA	No	No	No	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

### 16. Other Information

**Revision Date:** 09/19/2012

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required

Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108



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

**Product Code:** 400042

**Product Name:** EIA Antiserum Dye

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Carcinogenicity, Category 1B	Health hazard	Danger	May cause cancer

**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.  
 P281: Use personal protective equipment as required.

**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.

**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

**Potential Health Effects (Acute and Chronic):** Material may be irritating to mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 May cause cancer.  
 May cause eye, skin, or respiratory system irritation.

**Target Organs:** No data available.

**LD 50 / LC 50:** Please refer to Section 11.

**Signs and Symptoms Of Exposure:** To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions Generally Aggravated By Exposure:** No data available.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases
1. EIA Antiserum Dye	NA	100.0 %	NA	R45

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

**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.

<b>In Case of Eye Contact:</b>	Hold eyelids apart and flush eyes with plenty of water for at least 20 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.

### 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	No data available.
<b>Hazardous Combustion Products:</b>	No data available.
<b>Flash Pt:</b>	No data.
<b>Autoignition Pt:</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. <span style="margin-left: 100px;">UEL: No data.</span>
<b>Fire Fighting Instructions:</b>	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.

### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. EIA Antiserum Dye	NA	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	
1. EIA Antiserum Dye	NA	No data.	No data.	

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<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.

**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.

### 9. Physical and Chemical Properties

**Information on Basic Physical and Chemical Properties**

**Physical States:**  Gas  Liquid  Solid

**Appearance and Odor:** A blue solution

**Boiling Point:** No data.

**Melting Point:** No data.

**Autoignition Pt:** No data.

**Flash Pt:** No data.

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

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

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

**Evaporation Rate:** No data.

**Solubility in Water:** No data.

**Other Information**

**Percent Volatile:** No data.

### 10. Stability and Reactivity

**Stability:** Unstable  Stable

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

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

**Polymerization:** Will occur  Will not occur

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

**Hazardous Decomposition Or Byproducts:** No data available.

### 11. Toxicological Information

**Toxicological Information:** 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.

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

### 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
 Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

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



# SAFETY DATA SHEET

## EIA Antiserum Dye

### 14. Transport Information

**Globally Harmonized System of Classification and Labelling**

Carcinogenicity, Category 1B - Danger! May cause cancer

**LAND TRANSPORT (US DOT)**
**DOT Proper Shipping Name** Not dangerous goods.

**LAND TRANSPORT (European ADR/RID)**
**ADR/RID Shipping Name** Not dangerous goods.

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

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

### 15. Regulatory Information

**European Community Hazard Symbol codes** T: Toxic; Carcinogenic Hazard: 2

**European Community Risk and Safety Phrases**

R45 - May cause cancer.

S24/25 - Avoid contact with skin and eyes.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

S53 - Avoid exposure - obtain special instructions before use.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. EIA Antiserum Dye	NA	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. EIA Antiserum Dye	NA	No	No	No	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

### 16. Other Information

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required

Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108



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

**Product Code:** 400050

**Product Name:** Ellman's Reagent

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Skin Corrosion/Irritation, Category 2	Exclamation point	Warning	Causes skin irritation
Serious Eye Damage/Eye Irritation, Category 2A	Exclamation point	Warning	Causes serious eye irritation
Target Organ Systemic Toxicity (single exposure), Category 3	Exclamation point	Warning	May cause respiratory irritation, or may cause drowsiness and dizziness
Acute Toxicity: Skin, Category 3	Skull and crossbones	Danger	Toxic in contact with skin
Acute Toxicity: Oral, Category 3	Skull and crossbones	Danger	Toxic if swallowed

**GHS Hazard Phrases:**

H311: Toxic in contact with skin.  
 H301: Toxic if swallowed.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation  
 H335: May cause respiratory irritation.

**GHS Precaution Phrases:**

P264: Wash hands thoroughly after handling.  
 P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.  
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

**GHS Response Phrases:**

P302+352: IF ON SKIN: Wash with plenty of soap and water.  
 P332+313: If skin irritation occurs, get medical advice/attention.  
 P362: Take off contaminated clothing and wash before re-use.  
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+313: If eye irritation persists, get medical advice/attention.  
 P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.  
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P361: Remove/Take off immediately all contaminated clothing.  
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P363: Wash contaminated clothing before reuse.  
 P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P330: Rinse mouth.



### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	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).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Other Precautions:</b>	Protect from light.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. 5,5'-Dithiobis(2-nitrobenzoic acid)	69-78-3	No data.	No data.	No data.
2. Acetylthiocholine iodide	1866-15-5	No data.	No data.	No data.
3. Sodium chloride	7647-14-5	No data.	No data.	No data.
4. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.
5. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	
1. 5,5'-Dithiobis(2-nitrobenzoic acid)	69-78-3	No data.	No data.	
2. Acetylthiocholine iodide	1866-15-5	No data.	No data.	
3. Sodium chloride	7647-14-5	No data.	No data.	
4. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	
5. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<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.

### 9. Physical and Chemical Properties

**Information on Basic Physical and Chemical Properties**

<b>Physical States:</b>	<input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
<b>Appearance and Odor:</b>	A lyophilized powder
<b>Boiling Point:</b>	No data.



<b>Melting Point:</b>	No data.
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	No data.
<b>Specific Gravity (Water = 1):</b>	No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Solubility in Water:</b>	No data.
<b>Other Information</b>	
<b>Percent Volatile:</b>	No data.

### 10. Stability and Reactivity

<b>Stability:</b>	Unstable [ <input type="checkbox"/> ]    Stable [ <input checked="" type="checkbox"/> ]
<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	No data available.
<b>Polymerization:</b>	Will occur [ <input type="checkbox"/> ]    Will not occur [ <input checked="" type="checkbox"/> ]
<b>Incompatibility - Materials To Avoid:</b>	strong bases strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	carbon dioxide carbon monoxide hydrogen chloride gas hydrogen iodide nitrogen oxides phosphorus oxides potassium oxides sodium oxides sulfur oxides

### 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this product have not been thoroughly studied.  Acetylthiocholine iodide - Toxicity Data: Oral LD50 (rat): 100 mg/kg; Skin LD50 (guinea pig): 500 mg/kg;  Potassium phosphate, monobasic - Toxicity Data: Oral LDLO (rat): 4,640 mg/kg; Skin LD50 (rabbit): >4,640 mg/kg;
<b>Chronic Toxicological Effects:</b>	Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. Acetylthiocholine iodide RTECS Number: FZ9865000 Potassium phosphate, monobasic RTECS Number: TC6615500

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 5,5'-Dithiobis(2-nitrobenzoic acid)	69-78-3	n.a.	n.a.	n.a.	n.a.
2. Acetylthiocholine iodide	1866-15-5	n.a.	n.a.	n.a.	n.a.
3. Sodium chloride	7647-14-5	n.a.	n.a.	n.a.	n.a.
4. Potassium phosphate, dibasic	7758-11-4	n.a.	n.a.	n.a.	n.a.
5. Potassium phosphate, Monobasic	7778-77-0	n.a.	n.a.	n.a.	n.a.

## 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

## 13. Disposal Considerations

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

## 14. Transport Information

**Globally Harmonized System of Classification and Labelling**

Skin Corrosion/Irritation, Category 2 - Warning! Causes skin irritation  
 Serious Eye Damage/Eye Irritation, Category 2A - Warning! Causes serious eye irritation  
 Target Organ Systemic Toxicity (single exposure), Category 3 - Warning! May cause respiratory irritation, or may cause drowsiness and dizziness  
 Acute Toxicity: Skin, Category 3 - Danger! Toxic in contact with skin  
 Acute Toxicity: Oral, Category 3 - Danger! Toxic if swallowed

**LAND TRANSPORT (US DOT)**

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

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

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

**AIR TRANSPORT (ICAO/IATA)**

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

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

## 15. Regulatory Information

**European Community Hazard Symbol codes** T: Toxic

**European Community Risk and Safety Phrases**

- R21 - Harmful in contact with skin.
- R25 - Toxic if swallowed.
- R36/37/38 - Irritating to eyes, respiratory system and skin.
- S24/25 - Avoid contact with skin and eyes.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 5,5'-Dithiobis(2-nitrobenzoic acid)	69-78-3	No	No	No	No
2. Acetylthiocholine iodide	1866-15-5	No	No	No	No
3. Sodium chloride	7647-14-5	No	No	No	No
4. Potassium phosphate, dibasic	7758-11-4	No	No	No	No
5. Potassium phosphate, Monobasic	7778-77-0	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP, ODC	CWA NPDES	TSCA	CA PROP.65
1. 5,5'-Dithiobis(2-nitrobenzoic acid)	69-78-3	No	No	Inventory	No
2. Acetylthiocholine iodide	1866-15-5	No	No	Inventory	No
3. Sodium chloride	7647-14-5	No	No	Inventory	No
4. Potassium phosphate, dibasic	7758-11-4	No	No	Inventory	No
5. Potassium phosphate, Monobasic	7778-77-0	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

## 16. Other Information

### Company Policy or Disclaimer

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N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



# SAFETY DATA SHEET

## EIA Buffer Concentrate (10X)

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Revision: 09/13/2012  
Supersedes Revision: 05/01/2012

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

**Product Code:** 400060

**Product Name:** EIA Buffer Concentrate (10X)

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

### 2. Hazards Identification

**GHS Hazard Phrases:** Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

**GHS Precaution Phrases:** No data available.

**GHS Response Phrases:** No data available.

**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.

**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.

**Target Organs:** No data available.

**Signs and Symptoms Of Exposure:** Exposure may cause: abdominal pain, congestion in internal organs, dehydration, diarrhea, gastrointestinal disturbances, lowered blood pressure, nausea, and vomiting.  
To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions Generally Aggravated By Exposure:** No data available.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Potassium phosphate, dibasic	7758-11-4	13.3 %	231-834-5	No phrases apply.	TC5580000
2. Potassium phosphate, Monobasic	7778-77-0	3.21 %	231-913-4	No phrases apply.	TC6615500
3. Sodium azide	26628-22-8	0.1 %	247-852-1	R28-32-50/53	VY8050000
4. Sodium chloride	7647-14-5	23.4 %	231-598-3	No phrases apply.	VZ4725000
5. EDTA, tetrasodium salt, hydrate	194491-31-1	0.38 %	NA	R22-41	NA
6. Bovine Serum Albumin (BSA)	9048-46-8	1.0 %	232-936-2	No phrases apply.	MT6446000
7. Water	7732-18-5	58.61 %	231-791-2	No phrases apply.	ZC0110000

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

**In Case of Inhalation:** 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 20 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 20 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.
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

### 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	No data available.
<b>Flash Pt:</b>	No data.
<b>Autoignition Pt:</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. <span style="margin-left: 150px;">UEL: No data.</span>
<b>Hazardous Combustion Products:</b>	No data available.
<b>Fire Fighting Instructions:</b>	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.

### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
3. Sodium azide	26628-22-8	No data.	CEIL: 0.29 mg/m <sup>3</sup>	No data.
4. Sodium chloride	7647-14-5	No data.	No data.	No data.
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No data.	No data.	No data.
6. Bovine Serum Albumin (BSA)	9048-46-8	No data.	No data.	No data.
7. Water	7732-18-5	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.



# SAFETY DATA SHEET

## EIA Buffer Concentrate (10X)

Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
3. Sodium azide	26628-22-8	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3
4. Sodium chloride	7647-14-5	No data.	No data.	No data.
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No data.	No data.	No data.
6. Bovine Serum Albumin (BSA)	9048-46-8	No data.	No data.	No data.
7. Water	7732-18-5	No data.	No data.	No data.

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<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.
<b>Environmental Exposure Controls:</b>	No data available.

## 9. Physical and Chemical Properties

### 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 clear, colorless solution
<b>pH:</b>	7.0
<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>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>Autoignition Pt:</b>	No data.
<b>Explosive Properties:</b>	No data available.
<b>Oxidizing Properties:</b>	No data available.
<b>Other Information</b>	
<b>Percent Volatile:</b>	No data.

## 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>



# SAFETY DATA SHEET

## EIA Buffer Concentrate (10X)

<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	No data available.
<b>Polymerization:</b>	Will occur [ ] Will not occur [ X ]
<b>Incompatibility - Materials To Avoid:</b>	strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	hydrogen chloride gas potassium oxides sodium oxides

### 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this compound have not been thoroughly studied.
<b>Chronic Toxicological Effects:</b>	No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Potassium phosphate, dibasic	7758-11-4	n.a.	n.a.	n.a.	n.a.
2. Potassium phosphate, Monobasic	7778-77-0	n.a.	n.a.	n.a.	n.a.
3. Sodium azide	26628-22-8	n.a.	n.a.	A4	n.a.
4. Sodium chloride	7647-14-5	n.a.	n.a.	n.a.	n.a.
5. EDTA, tetrasodium salt, hydrate	194491-31-1	n.a.	n.a.	n.a.	n.a.
6. Bovine Serum Albumin (BSA)	9048-46-8	n.a.	n.a.	n.a.	n.a.
7. Water	7732-18-5	n.a.	n.a.	n.a.	n.a.

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

### 12. Ecological Information

<b>General Ecological Information:</b>	Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
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### 13. Disposal Considerations

<b>Waste Disposal Method:</b>	Dispose in accordance with local, state, and federal regulations.
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### 14. Transport Information

#### LAND TRANSPORT (US DOT)

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

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

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

#### AIR TRANSPORT (ICAO/IATA)

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

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

### 15. Regulatory Information

#### European Community Hazard Symbol codes

No data available.

#### European Community Risk and Safety Phrases

S24/25 - Avoid contact with skin and eyes.  
S37/39 - Wear suitable gloves and eye/face protection.

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Potassium phosphate, dibasic	7758-11-4	No	No	No	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	No	No
3. Sodium azide	26628-22-8	Yes 500 LB	Yes 1000 LB	Yes	No



# SAFETY DATA SHEET

## EIA Buffer Concentrate (10X)

Revision: 09/13/2012  
Supercedes Revision: 05/01/2012

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
4. Sodium chloride	7647-14-5	No	No	No	No
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No	No	No	No
6. Bovine Serum Albumin (BSA)	9048-46-8	No	No	No	No
7. Water	7732-18-5	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Potassium phosphate, dibasic	7758-11-4	No	No	Inventory	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	Inventory	No
3. Sodium azide	26628-22-8	No	No	Inventory	No
4. Sodium chloride	7647-14-5	No	No	Inventory	No
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No	No	No	No
6. Bovine Serum Albumin (BSA)	9048-46-8	No	No	Inventory	No
7. Water	7732-18-5	No	No	Inventory	No

**Regulatory Information Statement:**

This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

## 16. Other Information

**Revision Date:** 09/13/2012**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required





# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Revision: 09/13/2012  
Supersedes Revision: 05/01/2012

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

**Product Code:** 400062

**Product Name:** Wash Buffer Concentrate (400X)

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

### 2. Hazards Identification

**GHS Hazard Phrases:** Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

**GHS Precaution Phrases:** No data available.

**GHS Response Phrases:** No data available.

**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.

**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.

**Target Organs:** No data available.

**Signs and Symptoms Of Exposure:** Ingestion of large amounts can cause abdominal pain, lowered blood pressure, nausea, and vomiting.  
To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions Generally Aggravated By Exposure:** No data available.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Potassium phosphate, dibasic	7758-11-4	53.0 %	231-834-5	No phrases apply.	TC5580000
2. Potassium phosphate, Monobasic	7778-77-0	12.9 %	231-913-4	No phrases apply.	TC6615500
3. Water	7732-18-5	34.1 %	231-791-2	No phrases apply.	ZC0110000

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

**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.

<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.
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

### 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	No data available.
<b>Flash Pt:</b>	No data.
<b>Autoignition Pt:</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Hazardous Combustion Products:</b>	No data available.
<b>Fire Fighting Instructions:</b>	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.

### 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
<b>Precautions To Be Taken in Storing:</b>	Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
3. Water	7732-18-5	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
3. Water	7732-18-5	No data.	No data.	No data.

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<b>Eye Protection:</b>	Safety glasses



# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

<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.
<b>Environmental Exposure Controls:</b>	No data available.

### 9. Physical and Chemical Properties

#### 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 clear, colorless solution
<b>pH:</b>	7.4
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Flash Pt:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>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>Autoignition Pt:</b>	No data.
<b>Explosive Properties:</b>	No data available.
<b>Oxidizing Properties:</b>	No data available.
<b>Other Information</b>	
<b>Percent Volatile:</b>	No data.

### 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	No data available.
<b>Polymerization:</b>	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
<b>Incompatibility - Materials To Avoid:</b>	strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	phosphorus oxides potassium oxides

### 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this product have not been thoroughly studied.
<b>Chronic Toxicological Effects:</b>	No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Potassium phosphate, dibasic	7758-11-4	n.a.	n.a.	n.a.	n.a.
2. Potassium phosphate, Monobasic	7778-77-0	n.a.	n.a.	n.a.	n.a.



# SAFETY DATA SHEET

## Wash Buffer Concentrate (400X)

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
3. Water	7732-18-5	n.a.	n.a.	n.a.	n.a.

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

### 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

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

### 14. Transport Information

**LAND TRANSPORT (US DOT)**

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

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

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

**AIR TRANSPORT (ICAO/IATA)**

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

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

### 15. Regulatory Information

**European Community Hazard Symbol codes**

No data available.

**European Community Risk and Safety Phrases**

S24/25 - Avoid contact with skin and eyes.  
S37/39 - Wear suitable gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Potassium phosphate, dibasic	7758-11-4	No	No	No	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	No	No
3. Water	7732-18-5	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Potassium phosphate, dibasic	7758-11-4	No	No	Inventory	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	Inventory	No
3. Water	7732-18-5	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

### 16. Other Information

**Revision Date:** 09/13/2012

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

**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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



## 11.beta.-Prostaglandin F2.alpha. AChE Tracer

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Revision: 12/05/2012  
Supersedes Revision: 11/29/2005

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

**Product Code:** 416520  
**Product Name:** 11.beta.-Prostaglandin F2.alpha. AChE Tracer  
**Intended Use:** For research use only, not for human or veterinary use.

### Manufacturer Information

**Company Name:** Cayman Chemical Company  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887  
**Information:** Cayman Chemical Company +1 (734)971-3335  
**Web site address:** www.caymanchem.com

## 2. Hazards Identification

**GHS Hazard Phrases:** Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precaution Phrases:** No data available.  
**GHS Response Phrases:** No data available.  
**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
**Target Organs:** No data available.  
**Signs and Symptoms Of Exposure:** To the best of our knowledge, the toxicological properties have not been thoroughly investigated.  
**Medical Conditions Generally Aggravated By Exposure:** No data available.

## 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	99.99 %	NA	No phrases apply.	NA
2. Sodium azide	26628-22-8	0.01 %	247-852-1	R28-32-50/53	VY8050000

## 4. First Aid Measures

### Emergency and First Aid Procedures:

**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.

## 11.beta.-Prostaglandin F2.alpha. AChE Tracer

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

**Indication of any immediate medical attention and special treatment needed:** No data available.

### 5. Fire Fighting Measures

**Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.  
Use water spray to cool fire-exposed containers.

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

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

**Flash Pt:** No data.

**Autoignition Pt:** No data available.

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

**Hazardous Combustion Products:** No data available.

**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.

### 6. Accidental Release Measures

**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).

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

**Steps To Be Taken In Case Material Is Released Or Spilled:** Contain spill and collect, as appropriate.  
Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

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

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

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	No data.	No data.	No data.
2. Sodium azide	26628-22-8	No data.	CEIL: 0.29 mg/m3	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	No data.	No data.	No data.
2. Sodium azide	26628-22-8	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3

**Protective Equipment Summary - Hazard Label Information:** Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood

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

**Eye Protection:** Safety glasses

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

**Other Protective Clothing:** Lab coat

**11.beta.-Prostaglandin F2.alpha. AChE Tracer**

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

**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.

**Environmental Exposure Controls:** No data available.

## 9. Physical and Chemical Properties

**Information on Basic Physical and Chemical Properties**

**Physical States:**  Gas  Liquid  Solid

**Appearance and Odor:** A lyophilized powder

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** 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.

**Autoignition Pt:** No data.

**Explosive Properties:** No data available.

**Oxidizing Properties:** No data available.

**Other Information**

**Percent Volatile:** No data.

## 10. Stability and Reactivity

**Reactivity:** No data available.

**Stability:** Unstable  Stable

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

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

**Polymerization:** Will occur  Will not occur

**Incompatibility - Materials To Avoid:** No data available.

**Hazardous Decomposition Or Byproducts:** No data available.

## 11. Toxicological Information

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

**Chronic Toxicological Effects:** No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	n.a.	n.a.	n.a.	n.a.
2. Sodium azide	26628-22-8	n.a.	n.a.	A4	n.a.

## 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.



## 11.beta.-Prostaglandin F2.alpha. AChE Tracer

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

## 13. Disposal Considerations

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

## 14. Transport Information

## LAND TRANSPORT (US DOT)

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

## LAND TRANSPORT (European ADR/RID)

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

## AIR TRANSPORT (ICAO/IATA)

**ICAO/IATA Shipping Name** Not dangerous goods.**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

## 15. Regulatory Information

## European Community Hazard Symbol codes

No data available.

## European Community Risk and Safety Phrases

S24/25 - Avoid contact with skin and eyes.

S37/39 - Wear suitable gloves and eye/face protection.

## US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	No	No	No	No
2. Sodium azide	26628-22-8	Yes 500 LB	Yes 1000 LB	Yes	No

## Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 11.beta.-Prostaglandin F2.alpha. AChE Tracer	NA	No	No	No	No
2. Sodium azide	26628-22-8	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

## 16. Other Information

**Revision Date:** 12/05/2012

## Company Policy or Disclaimer

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required





## 11.beta.-Prostaglandin F2.alpha. EIA Antiserum

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Revision: 12/05/2012  
Supersedes Revision: 11/29/2005

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

**Product Code:** 416522

**Product Name:** 11.beta.-Prostaglandin F2.alpha. EIA Antiserum

**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company

**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300

**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887

**Information:** Cayman Chemical Company +1 (734)971-3335

**Web site address:** www.caymanchem.com

## 2. Hazards Identification

**GHS Hazard Phrases:** Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

**GHS Precaution Phrases:** No data available.

**GHS Response Phrases:** No data available.

**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.

**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.

**Target Organs:** No data available.

**Signs and Symptoms Of Exposure:** To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions Generally Aggravated By Exposure:** No data available.

## 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	99.99 %	NA	No phrases apply.	NA
2. Sodium azide	26628-22-8	0.01 %	247-852-1	R28-32-50/53	VY8050000

## 4. First Aid Measures

**Emergency and First Aid Procedures:**

**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.

## 11.beta.-Prostaglandin F2.alpha. EIA Antiserum

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

**Indication of any immediate medical attention and special treatment needed:** No data available.

### 5. Fire Fighting Measures

**Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.  
Use water spray to cool fire-exposed containers.

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

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

**Flash Pt:** No data.

**Autoignition Pt:** No data available.

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

**Hazardous Combustion Products:** No data available.

**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.

### 6. Accidental Release Measures

**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).

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

**Steps To Be Taken In Case Material Is Released Or Spilled:** Contain spill and collect, as appropriate.  
Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

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

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

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	No data.	No data.	No data.
2. Sodium azide	26628-22-8	No data.	CEIL: 0.29 mg/m3	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	No data.	No data.	No data.
2. Sodium azide	26628-22-8	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3

**Protective Equipment Summary - Hazard Label Information:** Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood

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

**Eye Protection:** Safety glasses

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

## 11.beta.-Prostaglandin F2.alpha. EIA Antiserum

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

<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.
<b>Environmental Exposure Controls:</b>	No data available.

### 9. Physical and Chemical Properties

**Information on Basic Physical and Chemical Properties**

<b>Physical States:</b>	<input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
<b>Appearance and Odor:</b>	A lyophilized antiserum
<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>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>Autoignition Pt:</b>	No data.
<b>Explosive Properties:</b>	No data available.
<b>Oxidizing Properties:</b>	No data available.
<b>Other Information</b>	
<b>Percent Volatile:</b>	No data.

### 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	No data available.
<b>Polymerization:</b>	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
<b>Incompatibility - Materials To Avoid:</b>	No data available.
<b>Hazardous Decomposition Or Byproducts:</b>	No data available.

### 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this product have not been thoroughly studied.
<b>Chronic Toxicological Effects:</b>	No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	n.a.	n.a.	n.a.	n.a.
2. Sodium azide	26628-22-8	n.a.	n.a.	A4	n.a.

**11.beta.-Prostaglandin F2.alpha. EIA Antiserum**

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

**12. Ecological Information**

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

**13. Disposal Considerations**

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

**14. Transport Information****LAND TRANSPORT (US DOT)**

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

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

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

**AIR TRANSPORT (ICAO/IATA)**

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

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

**15. Regulatory Information****European Community Hazard Symbol codes**

No data available.

**European Community Risk and Safety Phrases**

S24/25 - Avoid contact with skin and eyes.

S37/39 - Wear suitable gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	No	No	No	No
2. Sodium azide	26628-22-8	Yes 500 LB	Yes 1000 LB	Yes	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 11.beta.-Prostaglandin F2.alpha. EIA Antiserum	NA	No	No	No	No
2. Sodium azide	26628-22-8	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

**16. Other Information**

**Revision Date:** 12/05/2012

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

**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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required

## 11.beta.-Prostaglandin F2.alpha. EIA Standard

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108



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

**Product Code:** 416524  
**Product Name:** 11.beta.-Prostaglandin F2.alpha. EIA Standard  
**Intended Use:** For research use only, not for human or veterinary use.

**Manufacturer Information**

**Company Name:** Cayman Chemical Company  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
**Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887  
**Information:** Cayman Chemical Company +1 (734)971-3335  
**Web site address:** www.caymanchem.com

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Acute Toxicity: Oral, Category 4	Exclamation point	Warning	Harmful if swallowed
Toxic To Reproduction, Category 1B	Health hazard	Danger	May damage fertility or the unborn child
Flammable Liquids, Category 2	Flame	Danger	Highly flammable liquid and vapor

**GHS Hazard Phrases:**  
 H302: Harmful if swallowed.  
 H360: May damage fertility or the unborn child.  
 H225: Highly flammable liquid and vapor.

**GHS Precaution Phrases:**  
 P264: Wash hands thoroughly after handling.  
 P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 P281: Use personal protective equipment as required.  
 P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.  
 P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.

**GHS Response Phrases:**  
 P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330: Rinse mouth.  
 P308+313: IF exposed or concerned: Get medical attention/advice.  
 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.

**Route(s) of Entry:**  
 Inhalation? Yes    Skin? Yes    Eyes? Yes    Ingestion? Yes    Other: Injection

**Potential Health Effects (Acute and Chronic):**  
 Causes eye, skin, or respiratory system irritation.  
 Harmful if swallowed.  
 Material is irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation or skin absorption.  
 May cause adverse reproductive effects in males and/or females.  
 May cause gastrointestinal disturbances.  
 May cause harm to the unborn child.  
 May impair fertility.  
 May stimulate contraction of intestinal and reproductive smooth muscle.  
 This chemical has the potential to induce premature labor or abortion.

**11.beta.-Prostaglandin F2.alpha. EIA Standard**

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<b>Target Organs:</b>	Central nervous system, Blood, Eyes, Reproductive system, Gastrointestinal System, Heart, Smooth muscles, Respiratory system, Liver, Endocrine system, Skin.
<b>LD 50 / LC 50:</b>	Please refer to Section 11.
<b>Signs and Symptoms Of Exposure:</b>	Exposure can cause: diarrhea, dizziness, fever, flushing, headache, hypotension, nausea, shivering, vomiting. Irritating to eyes, skin, nose; may cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.
<b>Medical Conditions Generally Aggravated By Exposure:</b>	No data available.

**3. Composition/Information on Ingredients**

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	< 0.01 %	NA	R22-60-61	NA
2. Ethyl alcohol	64-17-5	>99.99 %	200-578-6	R11	KQ6300000

**4. First Aid Measures**

<b>Emergency and First Aid Procedures:</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 20 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 20 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.
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

**5. Fire Fighting Measures**

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	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.
<b>Flash Pt:</b>	14.00 C Method Used: Closed Cup
<b>Autoignition Pt:</b>	363.00 C
<b>Explosive Limits:</b>	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
<b>Hazardous Combustion Products:</b>	No data available.
<b>Fire Fighting Instructions:</b>	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.

## 11.beta.-Prostaglandin F2.alpha. EIA Standard

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

### 6. Accidental Release Measures

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

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

**Steps To Be Taken In Case Material Is Released Or Spilled:** Contain spill and collect, as appropriate.  
Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7. Handling and Storage

**Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.  
Avoid exposure.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.

**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.

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

### 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	No data.	No data.	No data.
2. Ethyl alcohol	64-17-5	1000 ppm	1000 ppm	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	No data.	No data.	No data.
2. Ethyl alcohol	64-17-5	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	No data.

**Protective Equipment Summary - Hazard Label Information:** Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood

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

**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.

**Environmental Exposure Controls:** No data available.

### 9. Physical and Chemical Properties

**Information on Basic Physical and Chemical Properties**

**Physical States:**                                     Gas     Liquid     Solid

**Appearance and Odor:**                        Solution

**11.beta.-Prostaglandin F2.alpha. EIA Standard**

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<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Flash Pt:</b>	14.00 C Method Used: Closed Cup
<b>Evaporation Rate:</b>	No data.
<b>Explosive Limits:</b>	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
<b>Vapor Pressure (vs. Air or mm Hg):</b>	43 MM_HG at 20.0 C
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Specific Gravity (Water = 1):</b>	No data.
<b>Solubility in Water:</b>	No data.
<b>Autoignition Pt:</b>	363.00 C
<b>Explosive Properties:</b>	No data available.
<b>Oxidizing Properties:</b>	No data available.
<b>Other Information</b>	
<b>Percent Volatile:</b>	No data.

### 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Conditions To Avoid:</b>	heat, flames and sparks
<b>Polymerization:</b>	Will occur [ ] Will not occur [ X ]
<b>Incompatibility - Materials To Avoid:</b>	alkali metals ammonia peroxides strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	carbon dioxide carbon monoxide

### 11. Toxicological Information

<b>Toxicological Information:</b>	<p>The toxicological effects of this compound have not been thoroughly studied.</p> <p>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);</p> <p>Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderate;</p> <p>Prostaglandin F2.alpha. - Toxicity Data: Oral LD50 (rat): 1,170 mg/kg; Oral LD50 (mouse): 1,300 mg/kg; Subcutaneous LD50 (rat): 95 mg/kg; Subcutaneous LD50 (mouse): 212 mg/kg; Intravenous LD50 (rat): 106 mg/kg; Intravenous LD50 (mouse): 56 mg/kg; Intramuscular TDLO (woman): 200 µg/kg (14W PREG);</p>
<b>Chronic Toxicological Effects:</b>	<p>Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen.</p> <p>Prostaglandin F2.alpha. - Investigated as a mutagen and teratogen. Presumed human reproductive toxicant. May cause reproductive disorders.</p> <p>Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.</p> <p>Ethanol RTECS Number: KQ6300000</p> <p>Prostaglandin F2.alpha. RTECS Number: UK8020000</p>





## 11.beta.-Prostaglandin F2.alpha. EIA Standard

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	n.a.	n.a.	n.a.	n.a.
2. Ethyl alcohol	64-17-5	n.a.	1	A4	n.a.

## 12. Ecological Information

**General Ecological Information:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

## 13. Disposal Considerations

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

## 14. Transport Information

**Globally Harmonized System of Classification and Labelling**

Acute Toxicity: Oral, Category 4 - Warning! Harmful if swallowed  
Toxic To Reproduction, Category 1B - Danger! May damage fertility or the unborn child  
Flammable Liquids, Category 2 - Danger! Highly flammable liquid and vapor

**LAND TRANSPORT (US DOT)**

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

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

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

**AIR TRANSPORT (ICAO/IATA)**

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

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

## 15. Regulatory Information

**European Community Hazard Symbol codes** F: Highly Flammable; T: Toxic; Reproductive Hazard: 1

**European Community Risk and Safety Phrases**

R11 - Highly flammable.  
R22 - Harmful if swallowed.  
R60 - May impair fertility.  
R61 - May cause harm to the unborn child.  
S7 - Keep container tightly closed.  
S16 - Keep away from sources of ignition.  
S24/25 - Avoid contact with skin and eyes.  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S33 - Take precautionary measures against static discharges.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)



**11.beta.-Prostaglandin F2.alpha. EIA Standard**

Revision: 12/05/2012

Supercedes Revision: 11/29/2005

S53 - Avoid exposure - obtain special instructions before use.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 11.beta.-Prostaglandin F2.alpha.	38432-87-0	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, Regulation (EC) No.1272/2008, and European Directive 67/548/EEC as amended.

**16. Other Information**

**Revision Date:** 12/05/2012

**Company Policy or Disclaimer**

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required