

## Prostaglandin E Synthase (cytosolic) Polyclonal Antibody

Revision: 03/26/2013

Supersedes Revision: 03/10/2010

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



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

**Product Code:** 160150

**Product Name:** Prostaglandin E Synthase (cytosolic) Polyclonal Antibody

**Synonyms:** cPGE Synthase; cPGES;

**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: Oral, Category 5	none	Warning	May be harmful if swallowed

**GHS Hazard Phrases:**  
H315: Causes skin irritation.  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation.  
H303: May be harmful if swallowed.

**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.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.

**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 skin and serious eye irritation.  
Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause respiratory system irritation.

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<b>Target Organs:</b>	No data available.
<b>LD 50 / LC 50:</b>	Please refer to Section 11.
<b>Signs and Symptoms Of Exposure:</b>	Ingestion may cause: dehydration, diarrhea, gastrointestinal disturbances, nausea, and vomiting. 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. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	< 9.16 %	NA	No phrases apply.	NA
2. Sodium chloride	7647-14-5	<66.0 %	231-598-3	R36	VZ4725000
3. Trizma base	77-86-1	<25.0 %	201-064-4	R36/37/38	TY2900000

### 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>	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 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.

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**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. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	No data.	No data.	No data.
2. Sodium chloride	7647-14-5	No data.	No data.	No data.
3. Trizma base	77-86-1	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	No data.	No data.	No data.
2. Sodium chloride	7647-14-5	No data.	No data.	No data.
3. Trizma base	77-86-1	No data.	No data.	No data.

<b>Protective Equipment Summary - Hazard Label Information:</b>	Compatible chemical-resistant gloves glasses Safety shower in work area Vent Hood	Eye wash station in work area Lab coat Safety
<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 type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
<b>Appearance and Odor:</b>	A lyophilized powder
<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.

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**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 [ X ]

**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 [ X ]

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

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

## 11. Toxicological Information

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

Sodium chloride - Toxicity Data: Oral LDLO (man): 1,000 mg/kg; Oral LD50 (mouse): 4,000 mg/kg; Oral LD50 (rat): 3,000 mg/kg;

Trizma base - Toxicity Data: Oral LDLO (rabbit): 1,000 mg/kg; Oral TDLO (mouse): 3,000 mg/kg; Oral LD50 (rat) >3,000 mg/kg; Oral LD50 (mouse): 5,500 mg/kg; Oral TDLO (rat): 3,000 mg/kg;

**Chronic Toxicological Effects:** Trizma base - Investigated as a reproductive effector.  
Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.  
See actual entry in RTECS for complete information.  
Sodium chloride RTECS Number: VZ4725000  
Trizma base RTECS Number: TY2900000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	n.a.	n.a.	n.a.	n.a.
2. Sodium chloride	7647-14-5	n.a.	n.a.	n.a.	n.a.
3. Trizma base	77-86-1	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**

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

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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: Oral, Category 5 - Warning! May be harmful 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** Xi: Irritant**European Community Risk and Safety Phrases**

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. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	No	No	No	No
2. Sodium chloride	7647-14-5	No	No	No	No
3. Trizma base	77-86-1	No	No	Yes-Cat. N106	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Prostaglandin E Synthase (cytosolic) Polyclonal Antibody	NA	No	No	No	No
2. Sodium chloride	7647-14-5	No	No	Inventory	No
3. Trizma base	77-86-1	HAP	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:** 03/26/2013**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