

15(S)-15-methyl Prostaglandin F2.alpha. methyl ester

Revision: 09/12/2013

Supersedes Revision: 08/23/1999

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

Section 1. Identification of the Substance/Mixture and of the

1.1 Product Code:	16744
Product Name:	15(S)-15-methyl Prostaglandin F2.alpha. methyl ester
Synonyms:	9.alpha.,11.alpha.,15S-trihydroxy-15-methyl-prosta-5Z,13E-dien-1-oic acid, methyl ester; Methyl carboprost; U-36384; 15(S)-15-methyl PGF2.alpha. methyl ester;
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Relevant identified uses:	For research use only, not for human or veterinary use.
1.3 Details of the Supplier of the Safety Data Sheet	
Company Name:	Cayman Chemical Company
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

Section 2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Acute Toxicity: Oral, Category 3	Skull and crossbones	Danger	Toxic if swallowed
Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage
Skin Sensitization, Category 1	Exclamation point	Warning	May cause an allergic skin reaction
Toxic To Reproduction, Category 1B	Health hazard	Danger	May damage fertility or the unborn child
Target Organ Systemic Toxicity (single exposure), Category 3	Exclamation point	Warning	May cause respiratory irritation, or may cause drowsiness and dizziness

GHS Hazard Phrases:	H301: Toxic if swallowed. H318: Causes serious eye damage. H317: May cause an allergic skin reaction. H360: May damage fertility or the unborn child. H335: May cause respiratory irritation.
GHS Precaution Phrases:	P264: Wash {hands} thoroughly after handling. P280: Wear {protective gloves/protective clothing/eye protection/face protection}. P261: Avoid breathing {dust/fume/gas/mist/vapours/spray}. P272: Contaminated work clothing should not be allowed out of the workplace. P362+364: Take off contaminated clothing and wash it before reuse. 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:	P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a {POISON CENTER/doctor/...}. P302+352: IF ON SKIN: Wash with plenty of soap and water. P333+313: If skin irritation or rash occurs, seek medical advice/attention. P308+313: IF exposed or concerned: Get medical attention/advice. 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

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for breathing.

GHS Storage and Disposal Phrases:

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

2.3 Adverse Human Health Effects and Symptoms:

Causes serious eye damage.
 Material may be 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 an allergic skin reaction.
 May cause gastrointestinal disturbances.
 May cause skin or respiratory system irritation.
 May damage fertility or the unborn child.
 May stimulate contraction of intestinal and reproductive smooth muscle.
 Toxic if swallowed.
 This chemical has the potential to induce premature labor or abortion.
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Target Organs:

Central nervous system, Eyes, Reproductive system, Gastrointestinal System, Smooth muscles, Respiratory system, Endocrine system, Skin.

LD 50 / LC 50:

Please refer to Section 11.

Medical Conditions Generally Aggravated By

No data available.

Exposure:

Section 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases
1. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	100.0 %	NA	R25-41-43-60-61

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

4.1.1 In Case of Inhalation:

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

4.1.2 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.

4.1.3 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.

4.1.4 In Case of Ingestion:

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

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Exposure can cause: diarrhea, dizziness, fever, flushing, headache, hypotension, nausea, shivering, vomiting.

4.3 Indication of any immediate medical attention and special treatment needed:

No data available.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
 Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing Media:

A solid water stream may be inefficient.

5.2 Flammable Properties and Hazards:

Emits toxic fumes under fire conditions.

Flash Pt:

No data.

Autoignition Pt:

No data available.

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Explosive Limits:	LEL: No data.	UEL: No data.
Hazardous Combustion Products:	No data available.	
5.3 Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.	

Section 6. Accidental Release Measures

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

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling:	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid exposure.	
7.2 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.	

Section 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	No data.	No data.	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	
8.2.1 Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.	
8.2.2.1 Eye Protection:	Safety glasses	
8.2.2.2 Protective Gloves:	Compatible chemical-resistant gloves	
Other Protective Clothing:	Lab coat	
8.2.2.3 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.	
8.2.3 Environmental Exposure Controls:	No data available.	

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties	
Physical States:	<input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
Appearance and Odor:	A crystalline solid
Melting Point:	No data.

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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.
Solubility Notes:	~5 mg/ml in PBS (pH 7.2); ~50 mg/ml in EtOH, DMF & DMSO;
Autoignition Pt:	No data.
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
9.2 Other Information	
Percent Volatile:	No data.
Formula:	C22H38O5
Molecular Weight:	382.50

Section 10. Stability and Reactivity

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

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:	The toxicological effects of this compound have not been thoroughly studied.
Chronic Toxicological Effects:	<p>15(S)-15-methyl Prostaglandin F2.alpha. methyl ester - Toxicity Data: Intratesticular TDLo (rat): 4,400 µg/kg; Subcutaneous TDLo (rat): 4 µg/kg; Intravaginal TDLO (woman): 10 µg/kg;</p> <p>15(S)-15-methyl Prostaglandin F2.alpha. methyl ester - 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.</p> <p>15(S)-15-methyl Prostaglandin F2.alpha. methyl ester RTECS Number: MJ9654500</p>

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	n.a.	n.a.	n.a.	n.a.

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

Section 12. Ecological Information

12.1 Toxicity:	Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
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Section 13. Disposal Considerations**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.**Section 14. Transport Information****14.1 LAND TRANSPORT (US DOT)****DOT Proper Shipping Name** Not dangerous goods.**14.1 LAND TRANSPORT (European ADR/RID)****ADR/RID Shipping Name** Not dangerous goods.**14.3 AIR TRANSPORT (ICAO/IATA)****ICAO/IATA Shipping Name** Not dangerous goods.**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.**Section 15. Regulatory Information****European Community Hazard Symbol codes** T: Toxic; Reproductive Hazard: 2**European Community Risk and Safety Phrases**

- R25 - Toxic if swallowed.
- R41 - Risk of serious damage to the eyes.
- R43 - May cause sensitization by skin contact.
- R60 - May impair fertility.
- R61 - May cause harm to the unborn child.
- S22 - Do not breathe dust.
- 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.
- 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. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	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. 15(S)-15-methyl Prostaglandin F2.alpha. methyl ester	35700-21-1	No	No	No	No

Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.**Section 16. Other Information****Revision Date:** 09/12/2013**Company Policy or Disclaimer**

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

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