

13,14-dihydro-15-keto Prostaglandin D2-d4

Revision: 09/03/2019

Supersedes Revision: 01/24/2013

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

Product Code: 10007978
Product Name: 13,14-dihydro-15-keto Prostaglandin D2-d4
Company Name: Cayman Chemical Company
 1180 E. Ellsworth Rd.
 Ann Arbor, MI 48108
Web site address: www.caymanchem.com
Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300
 CHEMTREC Outside USA and Canada: +1 (703)527-3887
Information: Cayman Chemical Company +1 (734)971-3335
Intended Use: For research use only, not for human or veterinary use.
Synonyms: 9.alpha.-hydroxy-11,15-dioxo-prost-5Z-en-1-oi-3,3,4,4-d4 acid; 13,14-dihydro-15-keto PGD2-d4;

2. Hazards Identification

Acute Toxicity: Oral, Category 4
Toxic To Reproduction, Category 1B
Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Specific Target Organ Toxicity (single exposure), Category 3



GHS Signal Word: **Danger**

GHS Hazard Phrases: H302: Harmful if swallowed.
 H360: May damage fertility or the unborn child.
 H225: Highly flammable liquid and vapor
 H316: Causes mild skin irritation.
 H319: Causes serious eye irritation
 H336: May cause drowsiness or dizziness.
 EUH066: Repeated exposure may cause skin dryness or cracking.

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.
 P264: Wash hands thoroughly after handling.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

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.
 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.

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GHS Storage and Disposal Phrases:	Please refer to Section 7 for Storage and Section 13 for Disposal information.
Emergency Overview:	<p>Highly Flammable.</p> <p>Harmful.</p> <p>Avoid contact and inhalation.</p> <p>Target Organ(s): central nervous system, digestive system, endocrine system, eyes, kidneys, respiratory system, skin.</p>
Potential Health Effects (Acute and Chronic):	<p>Exposure may cause sensitization.</p> <p>Exposure may cause vasodilation and an inhibition of platelet aggregation.</p> <p>Material may be irritating to the mucous membranes and upper respiratory tract.</p> <p>May be harmful by inhalation, ingestion, or skin absorption.</p> <p>May cause eye, skin, or respiratory system irritation.</p> <p>May damage fertility or the unborn child.</p> <p>To the best of our knowledge, the toxicological properties have not been thoroughly investigated.</p>

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
NA	13,14-dihydro-15-keto Prostaglandin D2-d4	0.01 %	NA
79-20-9	Methyl acetate	99.99 %	AI9100000

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.
Signs and Symptoms Of Exposure:	<p>Exposure can cause: diarrhea, dizziness, fever, flushing, headache, hypotension, nausea, shivering, vomiting.</p> <p>Exposure may cause: coughing, drowsiness, narcosis, optic nerve atrophy, chest tightness.</p>

5. Fire Fighting Measures

Flash Pt:	-10.00 C Method Used: Closed Cup
Explosive Limits:	LEL: 3.1% at 25.0 C UEL: 16% at 25.0 C
Autoignition Pt:	455.00 C
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.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes. Note: Flammable as diluted in methyl acetate.
Flammable Properties and Hazards:	<p>Can release vapors that form explosive mixtures at temperatures at or above the flash point.</p> <p>Container explosion may occur under fire conditions.</p> <p>Emits toxic fumes under fire conditions.</p> <p>Sensitive to static discharge.</p>

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Vapors can travel to a source of ignition and flash back.

Hazardous Combustion No data available.

Products:

6. Accidental Release Measures

Protective Precautions, Avoid breathing vapors and provide adequate ventilation.

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

Emergency Procedures:

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

Steps To Be Taken In Case Contain spill and collect, as appropriate.

Material Is Released Or Spilled: 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. 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: Protect from moisture.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
NA	13,14-dihydro-15-keto Prostaglandin D2-d4	No data.	No data.	No data.
79-20-9	Methyl acetate	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
79-20-9	Methyl acetate	ACGIH TLV	TLV: 200 ppm STEL: 250 ppm	
		France VL	TWA: 610 mg/m3 (200 ppm) STEL: 760 mg/m3 (250 ppm)	
		OSHA PELs	PEL: 200 ppm	
		Britain EH40	TWA: 616 mg/m3 (200 ppm) STEL: 770 mg/m3 (250 ppm)	

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

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

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

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.

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9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	A solution in methyl acetate
pH:	No data.
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	-10.00 C Method Used: Closed Cup
Evaporation Rate:	No data.
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: 3.1% at 25.0 C UEL: 16% at 25.0 C
Vapor Pressure (vs. Air or mm Hg):	173 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	No data.
Solubility in Water:	No data.
Octanol/Water Partition Coefficient:	No data.
Autoignition Pt:	455.00 C
Decomposition Temperature:	No data.
Viscosity:	No data.
Molecular Formula & Weight:	C20H28D4O5 356.5

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid:	heat, flames, and sparks
Incompatibility - Materials To Avoid:	acids alkalis nitrates strong oxidizing agents
Hazardous Decomposition or Byproducts:	carbon dioxide carbon monoxide
Polymerization:	Will occur [] Will not occur [X]
Stability Note(s):	Stable if stored in accordance with information listed on the product insert.

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11. Toxicological Information

Toxicological Information: The toxicological effects of this compound have not been thoroughly studied.
 Methyl Acetate - Toxicity Data: Oral LD50 (rat): >5,000 mg/kg; Oral LD50 (rabbit): 3,705 mg/kg; Skin LD50 (rabbit): >5,000 mg/kg; Inhalation TCLO (human): 15,000 mg/m³ mg/kg;
 Methyl Acetate - Irritation Data: Skin (rabbit): 500 mg (24h) mild; Eyes (rabbit): 100 mg (24h) moderate;

Chronic Toxicological Effects: Methyl Acetate - Investigated as a mutagen and primary irritant.
 Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.
 See actual entry in RTECS for complete information.
 Methyl Acetate RTECS Number: AI9100000

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

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
NA	13,14-dihydro-15-keto Prostaglandin D2-d4	n.a.	n.a.	n.a.	n.a.
79-20-9	Methyl acetate	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
LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Methyl Acetate Solution
DOT Hazard Class: 3 FLAMMABLE LIQUID
UN/NA Number: UN1231 **Packing Group:** II


LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Methyl Acetate Solution
UN Number: 1231 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Methyl Acetate Solution
UN Number: 1231 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID **IATA Classification:** 3

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

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15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	13,14-dihydro-15-keto Prostaglandin D2-d4	No	No	No
79-20-9	Methyl acetate	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
NA	13,14-dihydro-15-keto Prostaglandin D2-d4	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
79-20-9	Methyl acetate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR; CA PROP.65: No

European Community Hazard Symbol codes:



F



Xn

European Community Risk and Safety Phrases:

- R11 Highly flammable.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R60 May impair fertility.
- R61 May cause harm to the unborn child.
- R66 Repeated exposure may cause skin dryness or cracking
- R67 Vapours may cause drowsiness and dizziness
- 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.
- S29 Do not empty into drains.
- S33 Take precautionary measures against static discharges.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S53 Avoid exposure - obtain special instructions before use.

16. Other Information

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Additional Information About This Product: No data available.

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