

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

Revision: 07/07/2011
Supersedes Revision: 02/27/2006

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

Product Code: 338610
Product Name: 13(S)-HODE-d4
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
Synonyms: 13S-hydroxy-9Z,11E-octadecadienoic-9,10,12,13-d4 acid;

2. Hazards Identification

Emergency Overview: Harmful.
Highly Flammable.
Irritant.
Target Organ(s): cardiovascular system, central nervous system, kidneys, liver, respiratory system.

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

Potential Health Effects (Acute and Chronic): Can cause fatal cyanide poisoning.
Causes eye irritation.
Harmful if swallowed, inhaled, or absorbed through the skin.
May cause skin or respiratory system irritation.
May be fatal if swallowed, inhaled, or absorbed through skin.
Several hours may elapse from exposure to onset of symptoms.

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

Signs and Symptoms Of Exposure: Nausea, vomiting, diarrhea, headache, dizziness, rash, cyanosis, excitement, depression, drowsiness, impaired judgement, lack of coordination, stupor, death.
Treat as cyanide poisoning. Always have on hand a cyanide first-aid kit, together with proper instructions. The onset of symptoms is generally delayed pending conversion to cyanide.
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. 13(S)-HODE-d4	139408-39-2	0.01 %	NA	No data available.	NA
2. Acetonitrile	75-05-8	99.99 %	200-835-2	R11-20/21/22-36	AL7700000

4. First Aid Measures

Emergency and First Aid Procedures: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
If swallowed, 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.
In case of contact with eyes, 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 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.

Note to Physician:

Acetonitrile is metabolized to cyanide. Patients with significant exposures must be observed for signs of cyanide poisoning and treated accordingly.

5. Fire Fighting Measures

Flash Pt: 2.00 C Method Used: Closed Cup

Explosive Limits: LEL: 3.0% at 25.0 C UEL: 16.0% at 25.0 C

Autoignition Pt: 524.00 C

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 acetonitrile

Flammable Properties and Hazards: Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.
Container explosion may occur under fire conditions.
Emits toxic fumes under fire conditions.
Sensitive to static discharge.
Vapors can travel to a source of ignition and flash back.

Hazardous Combustion Products: No data available.

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.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Avoid release into the environment.
Avoid breathing vapors and provide adequate ventilation.
Remove all sources of ignition.
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).
Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

7. Handling and Storage

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

Precautions To Be Taken in Handling: Avoid breathing (dust, vapor, mist, gas).
Avoid prolonged or repeated exposure.
Keep away from sources of ignition.
Prevent the build up of electrostatic charge.

Precautions To Be Taken in Storing: Keep away from heat, sparks, and flame.
Keep tightly closed.
Store at correct temperature.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. 13(S)-HODE-d4	139408-39-2	No data.	No data.	No data.
2. Acetonitrile	75-05-8	40 ppm	20 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

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.

9. Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	524.00 C
Flash Pt:	2.00 C Method Used: Closed Cup
Explosive Limits:	LEL: 3.0% at 25.0 C UEL: 16.0% at 25.0 C
Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	73 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate:	No data.
Solubility in Water:	No data.
Percent Volatile:	No data.
Formula:	C18H28D4O3
Molecular Weight:	300.50
Appearance and Odor:	No data available.

10. Stability and Reactivity

Stability:	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
Conditions To Avoid - Instability:	heat, flames and sparks
Incompatibility - Materials To Avoid:	acids alkali metals bases oxidizing agents reducing agents
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide hydrogen cyanide nitrogen oxides
Possibility of Hazardous Reactions:	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

The toxicological effects of this product have not been thoroughly studied.

Acetonitrile - Toxicity Data: Oral LD50 (rat): 2,460 mg/kg; Inhalation LC50 (rat): 7,551 ppm (8h); Dermal LD50 (rabbit): 980 mg/kg; Irritation Data: Skin (rabbit) mild; Eyes (rabbit): moderate.

13(S)-HODE-d4

Revision: 07/07/2011

Supersedes Revision: 02/27/2006

Chronic Toxicological Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.
Acetonitrile RTECS Number: AL7700000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 13(S)-HODE-d4	139408-39-2	n.a.	n.a.	n.a.	n.a.
2. Acetonitrile	75-05-8	n.a.	n.a.	A4	n.a.

12. 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: Acetonitrile Solution
DOT Hazard Class: 3
DOT Hazard Label: FLAMMABLE LIQUID
UN/NA Number: 1648
Packing Group: II

LAND TRANSPORT (European ADR/RID)

ADR/RID Shipping Name: Acetonitrile Solution
UN Number: 1648
Hazard Class: 3 - FLAMMABLE LIQUID
Packing Group: II

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name: Acetonitrile Solution
UN Number: 1648
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; Xn: Harmful

European Community Risk and Safety Phrases

R11 - Highly flammable.
 R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
 R36 - Irritating to eyes.
 S16 - Keep away from sources of ignition.
 S36/37 - Wear suitable protective clothing and gloves.

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 13(S)-HODE-d4	139408-39-2	No	No	No	No
2. Acetonitrile	75-05-8	No	Yes 5000 LB	Yes	No



MATERIAL SAFETY DATA SHEET

13(S)-HODE-d4

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 13(S)-HODE-d4	139408-39-2	No	No	No	No
2. Acetonitrile	75-05-8	HAP	No	Inventory, 8A PAIR	No

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