

# MATERIAL SAFETY DATA SHEET

## (2S)-OMPT

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

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### 1. Product and Company Identification

**Product Code:** 10005707  
**Product Name:** (2S)-OMPT  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Agonists & Antagonists  
**Synonyms:** (2S)-3-[(hydroxymercaptophosphinyl)oxy]-2-methoxypropyl ester, 9Z-octadecenoic acid, triethyl ammonium salt;

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA TWA	ACGIH TLV	Other Limits
1. (2S)-OMPT	NA	1.0 %	No data.	No data.	No data.
2. Ethyl alcohol	64-17-5	49.5 %	8H TWA:1000 ppm (1900 mg/m3)	1000 ppm	No data.
3. Chloroform	67-66-3	49.5 %	No data.	10 ppm	No data.
Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. (2S)-OMPT	NA	No data.	No data.	No data.	No data.
2. Ethyl alcohol	KQ6300000	No data.	No data.	No data.	No data.
3. Chloroform	FS9100000	No data.	50 ppm	No data.	No data.

### 3. Hazards Identification

**Emergency Overview:** No data available.

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

**Potential Health Effects (Acute and Chronic):** The hazards identified with this product are those associated with the solvent(s).  
 Chloroform is a California Prop. 65 carcinogen.  
 Causes eye, skin, or respiratory system irritation.  
 Long term repeated oral exposure to ethanol may result in the development of progressive liver injury with fibrosis.  
 Material is irritating to the mucous membranes and upper respiratory tract.  
 May be fatal by inhalation, ingestion, or skin absorption.  
 May cause cancer.  
 Repeated exposure may cause skin dryness or cracking.  
 Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the CNS system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head.  
 The toxicological properties of this compound have not been fully evaluated.

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

**Signs and Symptoms Of Exposure:** Ethanol: Exposure may cause: Dizziness, drowsiness, headache, nausea, and vomiting.  
 Chloroform: Inhalation: Acts as a relatively potent anesthetic. Irritates respiratory tract and causes central nervous system effects, including headache, drowsiness, dizziness. Exposure to higher concentrations may result in unconsciousness and even death. May cause liver injury and blood disorders. Prolonged exposure may lead to death due to irregular heart beat and kidney and liver disorders.  
 Chloroform: Ingestion causes severe burning in mouth and throat, pain in the chest and vomiting. Large quantities may cause symptoms similar to inhalation.  
 Chloroform: Skin contact causes skin irritation resulting in redness and pain. Removes natural oils. May be absorbed through skin.

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Chloroform: Vapors causes pain and irritation to eyes. Splashes may cause severe irritation and possible eye damage.  
Chloroform: Prolonged or repeated exposure to vapors may cause damage to the nervous system, the heart and the liver and kidneys. Contact with liquid has defatting effect and may cause chronic irritation of skin with cracking and drying, and corresponding dermatitis. Chloroform is a suspected human carcinogen.

**Medical Conditions Generally Aggravated By Exposure:** Ethanol: Repeated exposure to ethanol may aggravate liver injury produced from other causes.  
Chloroform: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

### 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, DO NOT INDUCE VOMITING! Give large quantities of milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing 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. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**Note to Physician:** Because kidney and liver effects may be delayed, keep victim under observation for 24 to 48 hr. Administration of fluids may help to prevent kidney failure. Obtain blood glucose, urinalysis, liver function tests, chest x-ray, and monitor cardiac function and fluid/electrolyte status. Monitor liver and kidney function for 4 to 5 days after exposure. Disulfiram, its metabolites, and a high carbohydrate diet appear to protect somewhat against chloroform toxicity. Do not give adrenalin! Tests may show increased bilirubin, ketosis, lowered blood prothombin, and fibrogen.

### 5. Fire Fighting Measures

**Flash Pt:** No data.

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

**Autoignition Pt:** No data.

**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
Note: Flammable as diluted in ethanol.

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

**Hazardous Combustion Products:** carbon dioxide  
carbon monoxide

**Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.

**Unsuitable Extinguishing Media:** No data available.

### 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear a government approved 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.  
After removal, ventilate contaminated area and flush thoroughly with water.



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magnesium powder  
methanol  
potassium  
sodium  
sodium methoxide  
strong inorganic acids  
strong oxidizing agents  
tert-butoxide  
triisopropylphosphine

**Hazardous Decomposition Or Byproducts:** carbon dioxide  
carbon monoxide  
hydrogen chloride  
phosgene

**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid - Hazardous Polymerization:** No data available.

### 11. Toxicological Information

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

**Toxicity Data - Chloroform:**  
Oral LD50 (rat): 908 mg/kg  
Skin LD50 (rabbit ): > 20 gm/kg  
Inhalation LC50 (rat): 47702 mg/m<sup>3</sup>/4H

**Irritation Data - Chloroform:**  
Skin (rabbit): 10 mg 24H mild effect  
Eye (rabbit): 20 mg 24H moderate effect

**Chronic Toxicological Effects:** Chloroform - Investigated as a tumorigen, mutagen, reproductive effector.  
Chloroform - Birth defects have been seen in rats and mice exposed by inhalation of chloroform at concentrations greater than 100 ppm in air. Ingestion of chloroform by pregnant laboratory animals has resulted in fetotoxicity but not birth defects, and only at levels causing severe maternal effects.

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.  
See actual entry in RTECS for complete information.  
Chloroform RTECS Number: FS9100000

**Carcinogenicity/Other Information:** No data available.

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

### 12. Ecological Information

**Ecological Information:** 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:** Chloroform:Ethyl alcohol  
**DOT Hazard Class:** 6.1  
**DOT Hazard Label:** POISON  
**UN/NA Number:** 1888

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DOT Packing Group: III

Additional Transport Information:

Transport in accordance with local, state, and federal regulations.

### 15. Regulatory Information

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. (2S)-OMPT	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No
3. Chloroform	67-66-3	Yes 10000 LB	Yes 10 LB	Yes	Yes

#### US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. (2S)-OMPT	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No
3. Chloroform	67-66-3	HAP	No	8A CAIR	Yes

### 16. Other Information

#### Company Policy or Disclaimer

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

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