



MATERIAL SAFETY DATA SHEET

(+)-CP 47,497 (solution)

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

Revision: 06/01/2011
Supersedes Revision: 08/31/2009

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

Product Code: 13219

Product Name: (+)-CP 47,497 (solution)

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: 2[(1R,3S)-3-hydroxycyclohexyl]-5-(2-methyloctan-2-yl)phenol;

2. Hazards Identification

Emergency Overview: Highly Flammable. Danger - Poison.
Toxic.
Target Organ(s): central nervous system, eyes, gastrointestinal tract, respiratory system, skin.
Avoid contact and inhalation.

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

Potential Health Effects (Acute and Chronic): Cannot be made nonpoisonous.
Irritating to eyes, respiratory system and skin.
Irritating to the mucous membranes and upper respiratory tract.
Harmful vapors.
Harmful if swallowed, inhaled, or absorbed through the skin.
May be fatal or cause blindness if swallowed.
May cause harm to the unborn child.
May impair fertility.

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

Signs and Symptoms Of Exposure: Overexposure may cause: dermatitis, headache, drowsiness, dizziness, nausea, vomiting, visual disturbance.
Methyl alcohol is a defatting agent and may cause skin to become dry and cracked.
Symptoms may be delayed.
Once methanol is absorbed into the body, it is very slowly eliminated.
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. (+)-CP 47,497	134308-14-8	1.0 %	NA	No phrases apply.	NA
2. Methanol	67-56-1	99.0 %	200-659-6	R11-23/24/25-39/23 /24/25-60-61	PC1400000

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.

5. Fire Fighting Measures

Flash Pt:

11.00 C Method Used: Closed Cup

Explosive Limits:

LEL: 6% at 25.0 C UEL: 36% at 25.0 C

Autoignition Pt:

385.00 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 methanol.

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 TWA	Other Limits
1. (+)-CP 47,497	134308-14-8	No data.	No data.	No data.
2. Methanol	67-56-1	PEL: 200 ppm	TLV: 200 ppm STEL: 250 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: Gas Liquid Solid

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: 385.00 C

Flash Pt: 11.00 C Method Used: Closed Cup

Explosive Limits: LEL: 6% at 25.0 C UEL: 36% at 25.0 C

Specific Gravity (Water = 1): No data.

Vapor Pressure (vs. Air or mm Hg): 96 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: C₂₁H₃₄O₂

Molecular Weight: 318.50

Appearance and Odor: No data available.

10. Stability and Reactivity

Stability: Unstable Stable

Conditions To Avoid - Instability: heat, flames and sparks

Incompatibility - Materials To Avoid: acids
alkali metals
reducing agents
strong oxidizing agents

Hazardous Decomposition Or Byproducts: carbon dioxide
carbon monoxide

Possibility of Hazardous Reactions: Will occur Will not occur

Conditions To Avoid - Hazardous Reactions: No data available.

11. Toxicological Information

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

Methanol - Toxicity Data: Oral LD50 (rat): 5,628 mg/kg; Inhalation LC50 (rat): 64,000 ppm (4h); Skin LD50 (rabbit): 15,800 mg/kg; Irritation Data: Skin (rabbit): 20 mg (24h) moderate; Eyes (rabbit): 100 mg (24h) moderate;

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.
Methanol RTECS Number: PC1400000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. (+)-CP 47,497	134308-14-8	n.a.	n.a.	n.a.	n.a.
2. Methanol	67-56-1	n.a.	n.a.	n.a.	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: Methanol Solution
DOT Hazard Class: 3
DOT Hazard Label: FLAMMABLE LIQUID, POISON
UN/NA Number: 1230
Packing Group: II

LAND TRANSPORT (European ADR/RID)

ADR/RID Shipping Name: Methanol Solution
UN Number: 1230
Hazard Class: 3 - FLAMMABLE LIQUID, POISON
Packing Group: II

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name: Methanol Solution
UN Number: 1230
Hazard Class: 3 - FLAMMABLE LIQUID, POISON
Packing Group: II
IATA Classification: 3,6.1

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

European Community Hazard Symbol codes: F: Highly Flammable; T: Toxic

European Community Risk and Safety Phrases

R11 - Highly flammable.
 R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.



MATERIAL SAFETY DATA SHEET

(+)-CP 47,497 (solution)

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

S7 - Keep container tightly closed.

S16 - Keep away from sources of ignition.

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.)

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. (+)-CP 47,497	134308-14-8	No	No	No	No
2. Methanol	67-56-1	No	Yes 5000 LB	Yes	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. (+)-CP 47,497	134308-14-8	No	No	No	No
2. Methanol	67-56-1	HAP	No	Inventory	No

Regulatory Information Statement:

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

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