

**Pinanyl Mercaptan Type 2**

Version 1.4

Revision Date 2011-02-16

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : Pinanyl Mercaptan Type 2  
Material : 1070313, 1072620, 1063182, 1031453, 1030966, 1030666,  
1031045

Use : Chemical intermediate

**Company** : Chevron Phillips Chemical Company LP  
Specialty Chemicals  
10001 Six Pines Drive  
The Woodlands, TX 77380

**Emergency telephone:****Health:**

866.442.9628 (North America)  
1.832.813.4984 (International)

**Transport:**

North America: CHEMTREC 800.424.9300 or 703.527.3887  
Asia: +800 CHEMCALL (+800 2436 2255) China: 0532.8388.9090  
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)  
Chemcare Asia: Tel: +65 6848 9048 - Mob: +65 8382 9188 - Fax: +65 6848  
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group  
E-mail address : MSDS@CPChem.com  
Website : www.CPChem.com

**2. HAZARDS IDENTIFICATION****Emergency Overview**

**Form:** Liquid **Physical state:** Liquid **Color:** Colorless to light yellow **Odor:** Pungent  
OSHA Hazards : Combustible Liquid, Mild skin irritant, Moderate eye irritant

**GHS Classification**


: Flammable liquids, Category 4  
Aspiration hazard, Category 2  
Eye irritation, Category 2A  
Skin irritation, Category 2  
Acute aquatic toxicity, Category 1  
Chronic aquatic toxicity, Category 1

**GHS-Labeling**

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Symbol(s) : 

Signal Word : Warning

Hazard Statements : H227: Combustible liquid  
H305: May be harmful if swallowed and enters airways.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
- No smoking.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P331 Do NOT induce vomiting.  
**Storage:**  
P403 + P235 Store in a well-ventilated place. Keep cool.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity:****IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**ACGIH**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : None Established

Molecular formula : Mixture

Chemical Name	CAS-No. / EINECS-No.	Concentration [wt%]
3-Pinanyl Mercaptan	72361-41-2	30 - 60

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2-Pinanyl Mercaptan

23832-18-0

30 - 60

**4. FIRST AID MEASURES**

- General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Symptoms of poisoning may only appear several hours later. Do not leave the victim unattended.
- If inhaled : If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**5. FIRE-FIGHTING MEASURES**

- Flash point : 88 °C (190 °F)
- Autoignition temperature : No data available
- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>).
- Unsuitable extinguishing media : High volume water jet.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
- Fire and explosion protection : Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
- Hazardous decomposition products : Sulfur oxides.

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**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Use personal protective equipment. Ensure adequate ventilation.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

- Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.

**Storage**

- Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Personal protective equipment**

- Respiratory protection : Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.
- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water. Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.

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- Skin and body protection : Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties****Appearance**

- Form : Liquid
- Physical state : Liquid
- Color : Colorless to light yellow
- Odor : Pungent

**Safety data**

- Flash point : 88 °C (190 °F)
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- Oxidizing properties : No
- Autoignition temperature : No data available
- Molecular formula : Mixture
- Molecular Weight : Not applicable
- pH : Not applicable
- Freezing point : No data available
- Pour point : No data available
- Boiling point/boiling range : 74 - 85 °C (165 - 185 °F)
- Vapor pressure : No data available
- Density : 970.6 G/L
- Water solubility : Partly soluble
- Partition coefficient: n-octanol/water : No data available
- Viscosity, kinematic : No data available
- Relative vapor density : No data available
- Evaporation rate : No data available
- Percent volatile : > 99 %

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**10. STABILITY AND REACTIVITY**

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure

**Possibility of hazardous reactions**

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : Avoid contact with strong oxidizing agents.

Other data : No decomposition if stored and applied as directed.

**11. TOXICOLOGICAL INFORMATION****Acute oral toxicity**

3-Pinanyl Mercaptan : No data available

**Acute inhalation toxicity**

3-Pinanyl Mercaptan : No data available

**Acute dermal toxicity**

3-Pinanyl Mercaptan : No data available

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Skin irritation : Irritating to skin. Information given is based on data obtained from similar substances.

**Pinanyl Mercaptan Type 2**

Eye irritation : Irritating to eyes. Information given is based on data obtained from similar substances.

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Aspiration toxicity : May be harmful if swallowed and enters airways.

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Further information : Solvents may degrease the skin. May cause headache and dizziness.

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

Biodegradability : This material is not expected to be readily biodegradable. Information given is based on data obtained from similar substances.

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**Further information on ecology**

**Additional ecological information** : Very toxic to aquatic life with long lasting effects.

**13. DISPOSAL CONSIDERATIONS**

The information in this MSDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

**Product** : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

**Contaminated packaging** : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

**14. TRANSPORT INFORMATION**

**The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).**

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the MSDS and the bill of lading.

**USDOT**

NA1993, COMBUSTIBLE LIQUID, N.O.S., (PINANYL MERCAPTAN), III

**IMO / IMDG**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (PINANYL MERCAPTAN), 9, III, MP (PINANYL MERCAPTAN), (88 °C)

**IATA**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (PINANYL MERCAPTAN), 9, III

**ADR**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (PINANYL MERCAPTAN), 9, III

**RID**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (PINANYL MERCAPTAN), 9, III

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**15. REGULATORY INFORMATION****National legislation**

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

**EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO – KNOW**

**SARA 302 Reportable Quantity** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.  
**SARA 313 Ingredients** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

**Ozone-Depletion Potential** : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

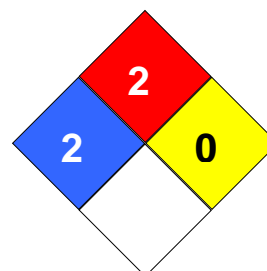
**California Prop. 65 Ingredients** : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

Europe REACH	: Not in compliance with the inventory
United States of America US.TSCA	: On the inventory, or in compliance with the inventory
Canada NDSL	: On the inventory, or in compliance with the inventory
Australia AICS	: On the inventory, or in compliance with the inventory
New Zealand NZIoC	: Not in compliance with the inventory
Japan ENCS	: Not in compliance with the inventory
Korea KECI	: Not in compliance with the inventory
Philippines PICCS	: Not in compliance with the inventory
China IECSC	: Not in compliance with the inventory

**16. OTHER INFORMATION**

**NFPA Classification** : Health Hazard: 2  
Fire Hazard: 2  
Reactivity Hazard: 0





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**Further information**

Legacy MSDS Number : 76070

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this MSDS pertains only to the product as shipped.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LOAEL	Lowest Observed Adverse Effect Level
AICS	Australia, Inventory of Chemical Substances	NFPA	National Fire Protection Agency
DSL	Canada, Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
NDSL	Canada, Non-Domestic Substances List	NTP	National Toxicology Program
CNS	Central Nervous System	NZIoC	New Zealand Inventory of Chemicals
CAS	Chemical Abstract Service	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration	NOEC	No Observed Effect Concentration
EC50	Effective Concentration 50%	OSHA	Occupational Safety & Health Administration
EINECS	European Inventory of Existing Chemical Substances	PEL	Permissible Exposure Limit
MAK	Germany Maximum Concentration Values	PICCS	Philippines Inventory of Commercial Chemical Substances
GHS	Globally Harmonized System	PRNT	Presumed Not Toxic
>=	Greater Than or Equal To	RCRA	Resource Conservation Recovery Act
IC50	Inhibition Concentration 50%	STEL	Short-term Exposure Limit
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act.
IECSC	Inventory of Existing Chemical Substances in China	TLV	Threshold Limit Value
ENCS	Japan, Inventory of Existing and New Chemical Substances	TWA	Time Weighted Average
KECI	Korea, Existing Chemical Inventory	TSCA	Toxic Substance Control Act
<=	Less Than or Equal To	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
LC50	Lethal Concentration 50%	WHMIS	Workplace Hazardous Materials Information System
LD50	Lethal Dose 50%		