

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



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

**Product Code:** 760914  
**Product Name:** 2-thio-PAF (substrate)  
**Intended Use:** For research use only, not for human or veterinary use.

**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

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS Hazard
Flammable Liquids, Category 2	Flame	Danger	Highly flammable liquid and vapor

**GHS Hazard Phrases:** H225: Highly flammable liquid and vapor

**GHS Precaution Phrases:** 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.

**GHS Response Phrases:** P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

**GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.

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

**Potential Health Effects (Acute and Chronic):** Causes eye, skin, or respiratory system irritation.  
 Material is irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.

**Target Organs:** Central nervous system, Blood, Eyes, Reproductive system, Heart, Respiratory system, Liver, Skin.

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

**Signs and Symptoms Of Exposure:** Irritating to eyes, skin, nose; may cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.  
 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. 2-thio PAF	96801-55-7	0.3 %	NA	No phrases apply.	NA
2. Ethyl alcohol	64-17-5	99.7 %	200-578-6	R11	KQ6300000

## 4. First Aid Measures

**Emergency and First Aid Procedures:**

<b>In Case of Inhalation:</b>	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
<b>In Case of Skin Contact:</b>	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.
<b>In Case of Eye Contact:</b>	Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.
<b>In Case of Ingestion:</b>	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.

## 5. Fire Fighting Measures

<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
<b>Unsuitable Extinguishing Media:</b>	A solid water stream may be inefficient.
<b>Flammable Properties and Hazards:</b>	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.
<b>Hazardous Combustion Products:</b>	No data available.
<b>Flash Pt:</b>	14.00 C Method Used: Closed Cup
<b>Autoignition Pt:</b>	363.00 C
<b>Explosive Limits:</b>	LEL: 3.3% at 25.0 C UEL: 19% at 25.0 C
<b>Fire Fighting Instructions:</b>	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 ethanol.

## 6. Accidental Release Measures

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Avoid breathing vapors and provide adequate ventilation. 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).
<b>Environmental Precautions:</b>	Take steps to avoid release into the environment, if safe to do so.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

## 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	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.
<b>Precautions To Be Taken in Storing:</b>	Keep away from heat, sparks, and flame. Keep container tightly closed. Store in accordance with information listed on the product insert.
<b>Other Precautions:</b>	Hygroscopic.
<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.



**Incompatibility - Materials To Avoid:** alkali metals  
 ammonia  
 peroxides  
 strong oxidizing agents

**Hazardous Decomposition Or Byproducts:** carbon dioxide  
 carbon monoxide

### 11. Toxicological Information

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

Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg; Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO (human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m<sup>3</sup> (20m); Inhalation LC50 (rat): 5,900 mg/m<sup>3</sup> (6h); Inhalation LCLO (mouse): 29,300 ppm (7h);

Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderate;

**Chronic Toxicological Effects:** Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.  
 Ethanol RTECS Number: KQ6300000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 2-thio PAF	96801-55-7	n.a.	n.a.	n.a.	n.a.
2. Ethyl alcohol	64-17-5	n.a.	1	A4	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

**Globally Harmonized System of Classification and Labelling**  
 Flammable Liquids, Category 2 - Danger! Highly flammable liquid and vapor

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name:** Ethyl Alcohol Solution

**DOT Hazard Class:** 3

**DOT Hazard Label:** FLAMMABLE LIQUID

**UN/NA Number:** 1170

**Packing Group:** II

**LAND TRANSPORT (European ADR/RID)**

**ADR/RID Shipping Name:** Ethyl Alcohol Solution

**UN Number:** 1170

**Hazard Class:** 3 - FLAMMABLE LIQUID

**Packing Group:** II

**AIR TRANSPORT (ICAO/IATA)**

**ICAO/IATA Shipping Name:** Ethyl Alcohol Solution

**UN Number:** 1170



# SAFETY DATA SHEET

## 2-thio-PAF (substrate)

**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

**European Community Risk and Safety Phrases**

- R11 - Highly flammable.
- S7 - Keep container tightly closed.
- S16 - Keep away from sources of ignition.
- S24/25 - Avoid contact with skin and eyes.
- S33 - Take precautionary measures against static discharges.
- S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 2-thio PAF	96801-55-7	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No

**Other US EPA or State Lists**

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 2-thio PAF	96801-55-7	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	Inventory	No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200, 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