

# Material Safety Data Sheet

## 4-Hydroxy-2-mercapto-6-propylpyrimidine, 98%

ACC# 21411

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 4-Hydroxy-2-mercapto-6-propylpyrimidine, 98%

**Catalog Numbers:** AC121310000, AC121310250, AC121311000

**Synonyms:** 6-Propyl-2-thiouracil; 2,3-Dihydro-6-propyl-2-thioxo-4(1H)-pyrimidinone; 2-Thio-4-oxo-6-propyl-1,3-pyrimidine; 2-Thio-6-propyl-1,3-pyrimidin-4-one; Propacil; Procasil; Propycil; Propyl-Thyracil; Thyreostat II; PTU; 2-Mercapto-4-hydroxy-6-n-propylpyrimidine; 2-Mercapto-6-propylpyrimid-4-one.

**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
51-52-5	Propylthiouracil	98	200-103-2

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** white crystalline powder.

**Suspect cancer hazard.** May cause cancer. May adversely affect the developing fetus. EPA requires handling and report/recordkeeping for PTU under RCRA. PTU is a hazardous constituent (Appendix VIII) with no waste number. **Warning!** May be harmful if swallowed, inhaled, or absorbed through the skin. Propylthiouracil (PTU) inhibits thyroid activity. May cause eye and skin irritation. May cause respiratory tract irritation.

**Target Organs:** Blood, liver, thyroid.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. If absorbed, may cause symptoms similar to those for ingestion. May be harmful if absorbed through the skin.

**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed. The most serious reaction to propylthiouracil is agranulocytosis, a severe decrease in the number of white blood cells that are a part of the immune system. Symptoms are sore throat and/or fever, and oral ulcers. may also cause rash, pain and stiffness in the joints, paresthesias, headache, nausea, and loss or depigmentation of hair. Other effects include pulmonary lesions, hepatitis and nephritis.

**Inhalation:** May cause respiratory tract irritation. May cause effects similar to those described for ingestion. May be harmful if inhaled.

**Chronic:** Prolonged or repeated exposure may cause thyroid inhibition. Propylthiouracil has induced malignant thyroid tumors in experimental animals. There are no adequate data available to evaluate the carcinogenicity of PTU in humans. Propylthiouracil may cause goiter in infants born to women following exposure to this compound. One case report has described an infant with hepatitis that may have been caused by placental transfer of PTU.

### Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.

**Skin:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry place. Keep container closed when not in use. Hormones and antibiotics room. Store protected from light and air.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Propylthiouracil	none listed	none listed	none listed

**OSHA Vacated PELs:** Propylthiouracil: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline powder

**Appearance:** white

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:**218.00 - 220.00 deg C

**Decomposition Temperature:**Not available.

**Solubility:** 0.1% @ 20°C

**Specific Gravity/Density:**Not available.

**Molecular Formula:**C7H10N2OS

**Molecular Weight:**170.23

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Light, prolonged exposure to air.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 51-52-5: YR1400000

### LD50/LC50:

**CAS#** 51-52-5:

Oral, rat: LD50 = 1250 mg/kg;

### Carcinogenicity:

**CAS#** 51-52-5:

- **ACGIH:** Not listed.

- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Group 2B carcinogen

**Epidemiology:** No information found

**Teratogenicity:** Propylthiouracil crosses the placenta and can cause suppression of fetal thyroid function.

**Reproductive Effects:** See actual entry in RTECS for complete information.

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 51-52-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 51-52-5: immediate, delayed.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 51-52-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains Propylthiouracil, a chemical known to the state of California to cause cancer. WARNING: This product contains Propylthiouracil, a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: CAS# 51-52-5: 0.7 æg/day NSRL

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

XN

**Risk Phrases:**

R 33 Danger of cumulative effects.

**Safety Phrases:**

S 23 Do not inhale gas/fumes/vapour/spray.

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 51-52-5: 1

**Canada - DSL/NDSL**

CAS# 51-52-5 is listed on Canada's NDSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2A, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

Section 16 - Additional Information
-------------------------------------

**MSDS Creation Date:** 9/02/1997

**Revision #6 Date:** 10/03/2005

*The information above 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. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*