

# Safety Data Sheet

## Phosphotungstic Acid, Solid

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Phosphotungstic Acid, Solid

**Catalog Numbers:** SO-564

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H302-Acute toxicity, oral: 4

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

Consists of unknown acute dermal toxicity.

Consists of unknown acute inhalation toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

#### Hazard Statements:

H302-Harmful if swallowed

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

H335-May cause respiratory irritation

## Precautionary Statements:

P260-Do not breathe dusts or mists.

P261-Avoid breathing dust/fume/gas/mist/vapours/spray.

P264-Wash thoroughly after handling.

P270-Do not eat, drink, or smoke when using this product.

P271-Use only outdoors or in a well-ventilated area.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.

P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310-Immediately call a Poison Center/doctor.

P312-Call a Poison Center/doctor if you feel unwell.

P330-Rinse mouth.

P363-Wash contaminated clothing before reuse.

P403+P233-Store in a well-ventilated place. Keep container tightly closed.

P405-Store locked up.

P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
12501-23-4	Phosphotungstic Acid Hydrate	≤100

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

**Oral Exposure:** If swallowed, seek immediate medical advice. Do not induce vomiting. Rinse mouth with water and small quantities of drink water (stop if the exposed person feels sick as vomiting may be dangerous).

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

## 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 gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Phosphorus oxides, potentially hazardous fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

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

## Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Avoid dust formation.

**Methods for Cleaning up:** Carefully sweep up and containerize for proper disposal. Avoid dust generation and accumulation. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. **This material is deliquescent. Protect from air and moisture. Store in a tightly closed container in a refrigerator.** Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**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 a respirator's use.

#### Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - PELs
Phosphotungstic Acid Hydrate CAS#12501-23-4	3 mg/m3 TWA	5 mg/m3 TWA 10 mg/m3 STEL	5 mg/m3 TWA (vacated) 10 mg/m3 STEL (vacated)

### Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline Solid

**Appearance:** White

**Odor:** Odorless

**Vapor Pressure:** 25.62 hPa at 25°C (77°F)

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** 1.5-2.5 (5% Aqueous Solution)

**Relative Density:** 3.88 at 20°C (68°F)

**Melting point/freezing point:** 95°C (203°F)

**Solubility:** Soluble in water

**Boiling Point:** 107.9°C (226.2°F) at ca. 1013.25 hPa

**Flash Point:** Not available

**Evaporation Rate:** Not available

**Flammability (solid, gas):** Not available

**Partition coefficient: n-octanol water:** Not available

**Autoignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Specific Gravity/Density:** Not available

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under recommended storage conditions. **Keep refrigerated (4°C).**

**Conditions to Avoid:** Incompatible products, excess heat. Avoid dust formation. Avoid air and moisture exposure.

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

**Hazardous Decomposition Products:** Phosphorus oxides, potentially hazardous fumes and gases.

## Section 11 - Toxicological Information

### **CAS#12501-23-4 Phosphotungstic Acid Hydrate:**

LD50 Oral: 300-2000 mg/kg (rat)

LD50 Dermal: Not available

LC50 Inhalation: Not available

**Carcinogenicity:** Phosphotungstic Acid Hydrate CAS#12501-23-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation, and eye.

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Developmental Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Ames test (E. coli/salmonella typhimurium) – negative.

**Specific Target Organ Toxicity, Single Exposure:** Respiratory tract.

**Specific Target Organ Toxicity, Repeated Exposure:** Not available.

**Symptoms associated with exposure:** Ingestion may cause burns of the upper digestive and respiratory tract, burning, vomiting, diarrhea, nausea. Inhalation may cause damage/irritation to the respiratory tract, cough, burning, shortness of breath, mucosal irritations, headache, dizziness. Eye contact may cause serious eye damage, redness, burning, watering, blurred vision, blindness. Skin contact may cause burns, redness, irritation.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Harmful effect due to pH shift.

### **CAS#12501-23-4 Phosphotungstic Acid Hydrate:**

EC50, water flea: 70.8 mg/L 48h static (daphnia magna)

ErC50, algae: 7.8 mg/L 72h static (pseudokirchneriella subcapitata)(green algae)

EC50, bacteria: >1000 mg/L 3h static (activated sludge)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

### Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

### Section 14 – Transport Information

**DOT**

Proper shipping name: Corrosive Solid, Acidic, Inorganic, N.O.S. (Phosphotungstic Acid Hydrate)  
UN3260  
PG III  
Hazard Class 8

### Section 15 - Regulatory Information

**Canada Regulatory Information**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

### Section 16 - Additional Information

**SDS Creation Date:** 3/10/10

**Revision #1:** 2/24/15 RC

**Revision #2:** 9-13-19

**Revision #3:** 2-8-22

**Revision #4:** 2-1-24

*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 Rowley Biochemical, Inc. 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 Rowley Biochemical, Inc. has been advised of the possibility of such damages.*