

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 27.02.2019

Version number 1

Revision Date 22.06.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: Phosphotungstic Acid Hydrate**
- **Article number:** AGR1213
- **CAS Number:**
12501-23-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Laboratory chemicals, Manufacture of substances
- **Application of the substance / the preparation:** No further relevant information available.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**
Agar Scientific Ltd
Parsonage Lane
Stansted CM24 8GF
United Kingdom
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

 Eye Irrit. 2 H319 Causes serious eye irritation.
 STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard statements**
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
- **Precautionary statements**
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
P321 Specific treatment (see on this label).

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P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
 12501-23-4 Phosphotungstic Acid Hydrate

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
 Immediately remove any clothing soiled by the product.
 Causes burns.
- **After inhalation:**
 No adverse effects are anticipated from inhalation.
 Remove to fresh air. If not breathing give artificial respiration, if breathing is difficult give oxygen.
- **After skin contact:**
 Wash with water and soap and rinse thoroughly.
 Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin. Consult a doctor.
- **After eye contact:**
 Rinse opened eye under running water. If symptoms persist, consult a doctor.
 Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
- **After swallowing:**
 Drink plenty of water and provide fresh air. Call for a doctor immediately.
 If swallowed wash out mouth with water provided person is conscious. Call a physician.
- **4.2 Most important symptoms and effects, both acute and delayed**
 No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
 Use fire extinguishing methods suitable to surrounding conditions.
 Dry chemical powder.
- **5.2 Special hazards arising from the substance or mixture**
 Oxides of phosphorus, Tungsten oxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
 Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective gloves and glasses.
 Evacuate the area. Wear self-contained breathing apparatus, rubber boots, rubber gloves.
 Avoid dust formation. Avoid breathing dust.

- **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.
 Do not let product enter drains.

- **6.3 Methods and material for containment and cleaning up:**

Use neutralising agent.
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.
 Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material clean up is complete.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Thorough dedusting.
 Avoid prolonged or frequent exposure. Do not breathe dust/vapours. Do not get in eyes, on skin or on clothing.

- **Information about fire - and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep container tightly sealed.

- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:**

Use only in a chemical fume hood. Safety shower and eye bath. Wash contaminated clothing before re-use. Discard contaminated shoes. Wash thoroughly after handling.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:** Not required.

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
 Remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or CEN(EU). Where risk assessment shows air purifying respirators are

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appropriate use a full face particle respirator type n100(US) or type P3(EN143) respirator cartridge as a back up to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Chemical resistant.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

Chemical Safety Goggles.

· **Body protection:** Protective clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Crystalline

Colour: White

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/freezing point: 95 °C

Initial boiling point and boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

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· Vapour pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water at 25 °C:	2000 g/l
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Oxidising agents, Strong bases.
- **10.6 Hazardous decomposition products:**
Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine, tungsten oxide.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.
 - **Acute toxicity** Based on available data, the classification criteria are not met.
- | | | |
|--|------|-------------------|
| · LD/LC50 values relevant for classification: | | |
| Oral | LD50 | 3,300 mg/kg (rat) |
- **Specific symptoms in biological assay:**
Cough, Shortness of breath, Headache, Nausea, Vomiting
 - **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
No data available.
 - **Serious eye damage/irritation**
Causes serious eye irritation.
No data available.
 - **Respiratory or skin sensitisation** No data available.
 - **Acute effects (acute toxicity, irritation and corrosivity)**
Cause burns. May be harmful if absorbed through the skin. May be harmful if inhaled.
Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if swallowed.
Eye contact: Causes burns.
 - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
 - **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
- **Recommendation:**
Contact a licensed professional waste disposal service to dispose of this material.
The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA 	<p style="margin: 0;">UN3260</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name 	<p style="margin: 0;">CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Phosphotungstic acid hydrate)</p>
<ul style="list-style-type: none"> · ADR 	<p style="margin: 0;">3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Phosphotungstic Acid Hydrate)</p>
<ul style="list-style-type: none"> · IMDG, IATA 	<p style="margin: 0;">CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Phosphotungstic Acid Hydrate)</p>

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14.3 Transport hazard class(es)
ADR

Class 8 Corrosive substances.

IMDG, IATA

Class 8 Corrosive substances.
Label 8

14.4 Packing group
ADR, IMDG, IATA II

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Danger code (Kemler): Warning: Corrosive substances.
EMS Number: 8
Segregation groups F-A,S-B
Stowage Category Acids
 B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:
ADR
Limited quantities (LQ) 1 kg
Excepted quantities (EQ) Code: E2
 Maximum net quantity per inner packaging: 30 g
 Maximum net quantity per outer packaging: 500 g

UN "Model Regulation":

UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (PHOSPHOTUNGSTIC ACID HYDRATE), 8, II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Sales department

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Trade name: Phosphotungstic Acid Hydrate*(Contd. of page 7)***· Contact:**

sales@agarscientific.com

Tel: +44 (0) 1279 813 519

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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