

# SAFETY DATA SHEET

Revision Date 24-December-2021 Creation Date 17-December-2009 **Revision Number** 5

1. Identification

**Product Name** Phosphotungstic acid hydrate

Cat No.: A248-25; A248-100; A248-500

**CAS-No** 12501-23-4

**Synonyms** Tungstophosphoric acid hydrate (Crystalline/Certified)

**Recommended Use** Laboratory chemicals.

Food, drug, pesticide or biocidal product use. Uses advised against

Details of the supplier of the safety data sheet

Company

Manufacturer Importer/Distributor

Fisher Scientific Company Fisher Scientific 112 Colonnade Road. One Reagent Lane Fair Lawn, NJ 07410 Ottawa, ON K2E 7L6, Tel: (201) 796-7100

Canada

Tel: 1-800-234-7437

**Emergency Telephone Number** CHEMTREC®, Inside the USA: 800-424-9300

CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

Classification

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

Category 1 B Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Category 1 Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system.

**Label Elements** 

Signal Word

Danger

**Hazard Statements** 

Causes severe skin burns and eye damage May cause respiratory irritation



## **Precautionary Statements**

#### Prevention

Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fumes/gas/mist/vapours/spray

Wash face, hands and any exposed skin thoroughly after handling

#### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER/doctor

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Wash contaminated clothing before reuse

#### Storage

Store locked up

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

#### Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Tungstate(3-),	12501-23-4	100
tetracosamuoxododecaoxo[.mu.12-(phosphato(3		
-)-O:O:O:O:O:O:O:O:O:O:O)]dodeca-,		
trihydrogen, hydrate		
Tungsten hydroxide oxide phosphate	12067-99-1	-

## 4. First-aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required. Keep eye wide open while rinsing.

**Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Call a physician immediately.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison

control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a

one-way valve or other proper respiratory medical device.

Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water.

Never give anything by mouth to an unconscious person.

lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should

be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation
Treat symptomatically

**Notes to Physician** 

## 5. Fire-fighting measures

Suitable Extinguishing Media CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available Method - No information available

**Autoignition Temperature** 

**Explosion Limits** 

No information available

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

## **Specific Hazards Arising from the Chemical**

The product causes burns of eyes, skin and mucous membranes.

#### **Hazardous Combustion Products**

Oxides of phosphorus.

## **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

### 6. Accidental release measures

Personal Precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid

contact with skin, eyes or clothing.

**Environmental Precautions** Should not be released into the environment. Do not allow material to contaminate ground

water system. See Section 12 for additional Ecological Information.

**Methods for Containment and Clean** Sweep up and shovel into suitable containers for disposal. Avoid dust formation. **Up** 

# 7. Handling and storage

Handling Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face

protection. Use only under a chemical fume hood. Do not breathe dust. Do not ingest, If

swallowed then seek immediate medical assistance.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

Incompatible Materials. Strong oxidizing agents. Strong bases.

## 8. Exposure controls / personal protection

#### **Exposure Guidelines**

Component	Alberta	British Columbia	Ontario TWAEV	Quebec	ACGIH TLV	OSHA PEL	NIOSH IDLH
Tungstate(3-),	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	(Vacated) TWA:	TWA: 5 mg/m <sup>3</sup>
tetracosamuoxodode	STEL: 10 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup>		STEL: 10 mg/m <sup>3</sup>	_	5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup>
caoxo[.mu.12-(phosphat	•	, and the second		•		(Vacated) STEL:	_

o(3-)-O:O:O:O:O:O :O:O:O:O:O)]dodeca-, trihydrogen, hydrate				10 mg/m <sup>3</sup>	
Tungsten hydroxide oxide phosphate		TWA: 3 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>		

#### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

#### **Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

Eye Protection Goggles

**Hand Protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

	Glove material	Breakthrough time	Glove thickness	Glove comments
1	Butyl rubber	See manufacturers	-	Splash protection only
1		recommendations		

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, gloves with care avoiding skin contamination.

#### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly **Recommended Filter type:** Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

## **Environmental exposure controls**

No information available.

## **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 9. Physical and chemical properties

Physical State Solid
Appearance White
Odor Odorless

Odor Threshold<br/>pHNo information available<br/>No information availableMelting Point/Range89 °C / 192.2 °FBoiling Point/RangeNo information availableFlash PointNo information available

Evaporation Rate Not applicable

Flammability (solid, gas)

No information available

Flammability or explosive limits

UpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNot applicable

Vapor Density

Not applicable

Specific Gravity

No information available

Solubility Soluble in water Partition coefficient; n-octanol/water No data available

Autoignition TemperatureNo information availableDecomposition TemperatureNo information available

Viscosity Not applicable
Molecular Formula H3PO4.12WO3
Molecular Weight 2880.17

# 10. Stability and reactivity

Reactive Hazard None known, based on information available

**Stability** Stable under normal conditions.

Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat.

Incompatible Materials Strong oxidizing agents, Strong bases

Hazardous Decomposition Products Oxides of phosphorus

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

## 11. Toxicological information

#### **Acute Toxicity**

# Product Information Component Information

 Component
 LD50 Oral
 LD50 Dermal
 LC50 Inhalation

 Tungsten hydroxide oxide phosphate
 LD50 = 3300 mg/kg (Rat )
 Not listed
 Not listed

Toxicologically Synergistic No information available

**Products** 

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes burns by all exposure routes

Sensitization No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Tungstate(3-),	12501-23-4	Not listed				
tetracosamuoxodod						
ecaoxo[.mu.12-(phosp						
hato(3-)-O:O:O:O:O:O						
:O:O:O:O:O:O)]dodeca						
-, trihydrogen, hydrate						
Tungsten hydroxide	12067-99-1	Not listed				
oxide phosphate						

Mutagenic Effects No information available

**Reproductive Effects**No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

**Aspiration hazard** No information available

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes

severe swelling, severe damage to the delicate tissue and danger of perforation

**Endocrine Disruptor Information** No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity** 

Do not empty into drains.

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

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

## Disposal considerations

**Waste Disposal Methods** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

DOT

UN3260 **UN-No** 

**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.

**Technical Name** (PHOSPHOTUNGSTIC ACID)

**Hazard Class Packing Group** Ш

TDG

**UN-No** UN3260

**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.

**Hazard Class** 8 Ш **Packing Group** 

IATA

UN3260 **UN-No** 

**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.

**Hazard Class Packing Group** Ш

IMDG/IMO

UN-No UN3260

**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.

**Hazard Class Packing Group** Ш

## 15. Regulatory information

#### International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Tungstate(3-), tetracosamuoxododecaoxo[.mu. 12-(phosphato(3-)-O:O:O:O:O:O :O:O:O:O:O:O)]dodeca-, trihydrogen, hydrate	12501-23-4	-	1	1	-	-	-	-
Tungsten hydroxide oxide phosphate	12067-99-1	Х	-	Х	ACTIVE	235-087-6	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Tungstate(3-),	12501-23-4	Х	-	X	Х	X	X	Х	-
tetracosamuoxododecaoxo[.mu.									
12-(phosphato(3-)-O:O:O:O:O:O									
:O:O:O:O:O:O)]dodeca-,									
trihydrogen, hydrate									
Tungsten hydroxide oxide	12067-99-1	-	KE-35014	Х	Х	Х	Х	Х	X
phosphate									

#### Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

#### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## Other International Regulations

#### Authorisation/Restrictions according to EU REACH

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

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Tungstate(3-), tetracosamuoxododecaoxo[ .mu.12-(phosphato(3-)-O:O:O: O:O:O :O:O:O:O:O:O:O)]dodeca-, trihydrogen, hydrate		Not applicable	Not applicable	Not applicable	Not applicable
Tungsten hydroxide oxide phosphate	12067-99-1	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Tungstate(3-), tetracosamuoxododecaoxo[	12501-23-4	Not applicable	Not applicable	Not applicable	Not applicable

.m	u.12-(phosphato(3-)-O:O:O:					
	0:0:0					
	:O:O:O:O:O:O)]dodeca-,					
	trihydrogen, hydrate					
	Tungsten hydroxide oxide	12067-99-1	Not applicable	Not applicable	Not applicable	Not applicable
	phosphate					

## 16. Other information

Prepared By Regulatory Affairs

Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

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**Revision Summary**This document has been updated to comply with the requirements of WHMIS 2015 to align

with the Globally Harmonised System (GHS) for the Classification and Labelling of

Chemicals.

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**