



**Safety Data Sheet**  
According to 29 CFR 1910.1200 (OSHA HCS)

SDS No. 1045

Review date June 4, 2020

**1 Identification of substance and company**

**Product details**

**Product name:** **Lead Tungstate**  
**Product code:** 11502, 13084  
**Relevant identified uses of the substance:** Research and product development  
**Manufacturer/Supplier:** Noah Technologies Corporation  
1 Noah Park  
San Antonio, Texas 78249-3419  
Phone: (210) 691-2000  
Web site: www.noahtech.com  
**Emergency information:** CHEMTREC  
800-424-9300

**2 Hazards identification**

**Hazard designation:**

**GHS label elements**



**Signal word:**

**Danger**

**Hazard statements:**

H302+H332 Harmful if swallowed or if inhaled  
H350 May cause cancer  
H360 May damage fertility or the unborn child  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400+H410 Acute and chronic aquatic toxicity

**Precautionary statements:**

P201+P202 Obtain special instruction before use. Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink, or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release into the environment.  
P280 Wear protective gloves/protective clothing/ eye protection/ face protection.  
P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.  
P308+P313 IF exposed or concerned: Get medical advice/ attention.  
P391 Collect spillage  
P405 Store locked up  
P501 Dispose of contents/ container to an approved waste disposal plant.

**GHS Classification:**

Acute toxicity, oral - 4  
Acute toxicity, Inhalation - 4  
Carcinogenicity - 1B  
Reproductive toxicity - 1A  
Specific target organ toxicity - repeated exposure - 2  
Acute aquatic toxicity - 1  
Chronic aquatic toxicity - 1

**Classification of the substance or mixture:**

**Hazards not otherwise classified:**

None

**HMIS ratings (scale 0-4):**

HEALTH 2  
FLAMMABILITY 0  
PHYSICAL HAZARD 0

**3 Composition/Information on ingredients**

**Chemical name:** Lead Tungstate  
**Designation: (CAS#):** \*7759-01-5  
**EC Number:** 231-849-7  
**Formula:** PbWO<sub>4</sub>  
**Synonyms:** Lead tungsten oxide

#### 4 First aid measures

**After inhalation:** Seek immediate medical advice  
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**After skin contact:** Instantly wash with water and soap and rinse thoroughly. Remove contaminated clothing.  
If irritation persists, consult a physician

**After eye contact:** Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

**After swallowing:** If conscious, give 1-2 glasses of milk, induce vomiting, and seek medical attention immediately.

**Most important symptoms and effects, both acute and delayed:** None identified

**Indication of any immediate medical attention and special treatment needed:** None identified

#### 5 Fire-fighting measures

**Suitable extinguishing agents:** Non-flammable; Use extinguishing media most appropriate to surrounding fire conditions

**Special hazards caused by the material, its products of combustion or resulting gases:** In case of fire, the following can be released:  
Oxides of lead and tungsten

**Protective equipment:** Wear self-contained breathing apparatus  
Wear fully protective fire fighting equipment/clothing in fire situations

#### 6 Accidental release measures

**Person-related safety precautions:** Wear personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

**Measures for environmental protection:** Do not allow material to be released to the environment without proper governmental permits

**Measures for cleaning/collecting:** Dispose of contaminated material as waste according to section 13  
Place in a suitable container for proper disposal  
Ventilate and wash spill site after material removal is complete

**Additional information:** See Section 7 for information on safe handling  
See Section 8 for information on personal protective equipment  
See Section 13 for information on disposal

#### 7 Handling and storage

**Information for safe handling:** Keep containers tightly sealed  
Store in cool, dry place in tightly closed containers  
Ensure good ventilation/exhaustion at the workplace

**Information about protection against explosions and fires:** This product is not flammable

**Storage requirements to be met by storerooms and containers:** No special requirements

**Information about storage in one common storage facility:** Do not store together with strong acids

**Further information about storage condition:** Keep container tightly sealed  
Store in cool, dry conditions in well sealed containers

#### 8 Exposure controls/personal protection

**Additional information about design of technical systems:** Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

**Components with critical values that require monitoring at the workplace:** ACGIH TLV: TWA 0.05 mg(Pb)/m<sup>3</sup>; 0.05 mg(W)/m<sup>3</sup>

**Additional information:** None

**Personal protective equipment:**

**General protective and hygienic measures:** The usual precautionary measures should be adhered to in handling the chemicals  
Keep away from foodstuffs, beverages and food  
Instantly remove any soiled and impregnated garments  
Wash hands during breaks and at the end of the work

**Respiratory protection:** Use suitable respirator when high concentrations are present  
Use only NIOSH/MESA or CEN approved dust mask type N95 or TYPE P1 (EN 143)

**Hand protection:** Impervious gloves

**Eye protection:** Safety glasses

**Skin protection:** Protective work clothing

**Additional protective equipment:** Sufficient to prevent contact  
Emergency eyewash and safety shower

## 9 Physical and chemical properties

### General Information:

**Physical state:** Powder  
**Color:** White  
**Smell:** None  
**Molecular Weight (Calculated):** 455.04  
**pH (5% solution)** Not determined  
**Melting point/range:** Not determined  
**Boiling point/range:** Not determined  
**Flash point:** Non-flammable  
**Autoignition temperature:** Not determined  
**Decomposition temperature:** Not determined  
**Danger of explosion:** Product does not present an explosion hazard  
**Flammable limits:**  
**Lower:** Not determined  
**Upper:** Not determined  
**Vapor pressure (mm Hg):** Not determined  
**Specific gravity at 20 °C** Not determined  
**Solubility in/Miscibility with water at 20 °C** Insoluble

## 10 Stability and reactivity

**Conditions to be avoided:** No decomposition if used and stored according to specifications  
See section 7 for information on proper handling and storage  
**Materials to be avoided:** Strong oxidizing agents  
See section 7 for additional incompatibilities  
**Dangerous reactions:** No dangerous reactions known  
**Hazardous decomposition products:** Oxides of lead and tungsten

## 11 Toxicological information

### Acute toxicity:

**LD/LC50 values that are relevant for classification:** None

### Primary irritant effect:

**on the skin:** May cause irritation  
**on the eye:** May cause irritation  
**Sensitization:** No sensitizing effect known

### Carcinogenicity:

IARC: Group 2A: Probably carcinogenic to humans.  
NTP: Reasonably anticipated to be a human carcinogen, Reference note has been added by TD based on the background information of the NTP  
OSHA: Known human reproductive toxicant. May cause damage to organs through prolonged and repeated exposure.

### Additional toxicological information:

Lead salts have been reported to cross the placenta and to induce embryo- and feto-mortality. They also have teratogenic effect in some animals species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death.

## 12 Ecological information

### General notes:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Very toxic to aquatic life with long lasting effects.  
Do not allow material to be released to the environment without proper governmental permits

## 13 Disposal considerations

**Product recommendation:** Consult state, local or national regulation for proper disposal  
**Unclean packaging recommendation:** Disposal must be made according to official regulations  
**Recommended cleaning agent:** Water, if necessary with cleaning agent

## 14 Transport information

### Land transport DOT

**Proper shipping name:** Lead compounds, soluble, n.o.s.  
**Technical name:** Lead Tungstate  
**DOT Hazard Class:** 6.1  
**UN Identification number:** UN2291  
**Packing group:** PG III  
**North American Emergency Response Guidebook No.:** 151  
**Notes:**

### Air transport ICAO-TI and IATA-DGR:

**Proper shipping name:** Lead compounds, soluble, n.o.s.  
**Technical name:** Lead Tungstate  
**DOT Hazard Class:** 6.1  
**UN Identification number:** UN2291  
**Packing group:** PG III  
**North American Emergency Response Guidebook No.:** 151

### UPS Ground / FedEx Ground

**Proper shipping name:** Lead compounds, soluble, n.o.s.  
**Technical name:** Lead Tungstate  
**DOT Hazard Class:** 6.1  
**UN Identification number:** UN2291  
**Packing group:** PG III  
**North American Emergency Response Guidebook No.:** 151

### UPS Air

**Proper shipping name:** Lead compounds, soluble, n.o.s.  
**Technical name:** Lead Tungstate  
**DOT Hazard Class:** 6.1  
**UN Identification number:** UN2291  
**Packing group:** PG III  
**North American Emergency Response Guidebook No.:** 151

## 15 Regulatory information

**National regulations:** All components of this product are listed on the Canadian Domestic Substances List (DSL)  
Control Act Chemical Substance Inventory  
Calcium boride  
All components of this product are listed on the Canadian Domestic Substances List (DSL)

**Information about limitation of use:** For use only by technically qualified individuals

## 16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.