

GHS Safety Data Sheet

SDS No. : WWI02PAEG

Date Issued: 2013/08/08

Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information

Product name: **WS₂ Tungsten sulfide**

Product number:	Purity	Form	Size (mm) or Shape
WWI06PB	99 % (2N)	Powder	ca.5 μ m
—	99 % (2N), others	rod/tablet	Various shapes, Various sizes
—	99 % (2N), others	target	Various shapes, Various sizes

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd

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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
No data available	No data available	Substances and mixtures which, in contact with water, emit flammable gases : Not classified

GHS Label:

Pictograms or symbols

No data available

Warning word: Not applicable

Hazard information

Not applicable

Description of precaution

Not applicable

Additional hazard information :

See each section for reference.

Section 3. Composition / information on ingredients

Chemical or common name: Tungsten(IV) sulfide
 Synonyms: Tungsten disulfide
 Chemical formula: WS₂
 Single Substance or Compound: Single substance
 Composition: 100%
 CAS #: 12138-09-9
 RTECS#: No data available
 TSCA inventory: listed
 EINECS: 2352433

Section 4. First aid measures

(As for powdery product, and dusts originated from the product.)

- Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
- Skin contact: Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
- Inhalation: Remove the exposed person immediately and provide fresh air. Get medical attention.
- Ingestion: Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

- Extinguishing media: Not applicable. Use media appropriate for surrounding fire.
- Fire fighting: Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire.
- Explosion hazards:
Dust explosion: Fine powder forms explosive mixtures in air.
- Specific hazards arising from the chemical:
In case of fire, may liberate toxic gases/ fume.
- Combustion products: Sulfur oxides, tungsten oxides.

Section 6. Accidental release measures

(As for powdery product, and dusts originated from the product.)

- Personal Precautions: Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its dusts.
- Environmental hazard precautions:
Shut off leak if without risk.
Prevent flow out to river, etc. so as not to badly affect.
- Method for containment and cleaning up:
Indoor leakage: Ventilate as much as possible until the cleaning is completed.
Outdoor leakage: Work from the windward and evacuate the leeward crowd.
Gather up, pack in closed container as much as possible.
Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

- Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.

Precautions to be taken in storage:

- General precautions: Store in a cool, dry place away from incompatible materials.
Keep container or bottle tightly closed.

Section 8. Exposure controls / personal protection

- Exposure guideline: ACGIH (2008) : Tungsten, insoluble compounds
TLV-TWA 5mg/m³, STEL 10mg/m³ (as W)
OSHA (2006) : No data available

Facility measures:	(In case of dust generating work.) Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware:	Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, face shields, protective gloves. (In case of dust generating work.) Wear appropriate NIOSH/MSHA-approved respirator, air-supplied respirator, safety goggles, face shields, protective gloves, protective clothing, apron, including boots.

Section 9. Physical and chemical properties

Color and Form:	Dark gray powder or solid
Chemical formula:	WS ₂
Atomic weight:	248.0
Melting point:	1250 °C (decompose)
Boiling point:	No data available
Density:	7.6 g/cm ³
Water solubility	Insoluble
Flammable:	No data available
Oxidation:	None

Section 10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	Strong oxidizing agents
Condition to avoid:	No data available
Hazardous decomposition products:	Sulfur oxides, tungsten oxides.

Section 11. Toxicological information

Acute toxicity :	GHS : No data available
Skin corrosive / irritation:	GHS : No data available
Serious eyes damage / eye irritation:	GHS : No data available
Respiratory sensitization:	GHS : No data available
Skin sensitization:	GHS : No data available
Germ cell mutagenicity:	GHS : No data available
Carcinogenicity:	GHS : No data available
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
—single exposure:	GHS : No data available
Specific target organ toxicity	
—repeated exposure:	GHS : No data available
Aspiration hazard:	GHS : No data available
Other cautions:	Mechanical stimulation by dust affects eyes, skin and respiratory system.

Section 12. Ecological information

Ecotoxicity:

Hazards to the aquatic environment

—acute toxicity: GHS : No data available

—chronic toxicity: GHS : No data available

Hazardous to the ozone layer: GHS : No data available

No Freon or Halon

Fish toxicity: No data available

Degradability: No data available

Bioaccumulative potential: No data available

(ref.) Mo: Biological half-life 1 day, Rate of absorption Oral= 0.1 Respiratory tract= 0.3

C: No data available

Mobility in soil: No data available

Section 13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN classification: Non-hazards

UN number: None

HS code: 2830.90

Marine pollution: None

Precautions: Container should be transported in a secure position, in a well-ventilated vehicle.

Section 15. Regulatory information

TSCA inventory : listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.