

GHS Material Safety Data Sheet

MSDS No. : TII01PAEG

Date Issued: 2011/06/10

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

1.1 Product Information

Product name: TiN **Titanium nitride**

Product number:	Purity	Form	Size (mm) or Shape
TII05PB	99% (2N)	powder	53 μ m pass
—	—	grains	Various sizes
—	—	rod/tablet	Various sizes
—	—	target	50.8 x5t, 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	Not classified.

GHS Label:

Pictograms or symbols No data available

Warning word: Not applicable

Hazard information	Description of precaution
Not applicable	Not applicable

Additional hazard information :

With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name: Titanium nitride
Chemical formula: TiN
Single Substance or Compound: Single substance
Composition: 100%
CAS #: 25583-20-4
RTECS#: XR2230000
TSCA inventory: listed
EINECS: 2471175

Section 4. First aid measures

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:	This product cannot catch fire. Use media appropriate for surrounding fire.
Fire fighting:	The product is nonflammable.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor.
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.
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Precautions to be taken in storage:

General precautions:	Store in a cool, dry place away from incompatible materials.
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Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2008) : No data available OSHA (2006) : No data available
Facility measures:	Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware:	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:	Bronze solid, odorless.
Chemical formula:	TiN
Formula weigh	61.9
Melting point:	2950
Boiling point:	No data available
Density:	5.43 g/cm ³
Water solubility	Insoluble
Flammable:	non-flammable substance
Oxidation:	None

Section 10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	No data available
Condition to avoid:	No data available
Hazardous decomposition products.:	
	Nitrogen oxides, titanium 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
Fish toxicity:	No data available

Degradability:	No data available
Bioaccumulative potential:	Ti biological half-life 320 day, Rate of absorption Oral=0.0001 Respiratory tract=0.25
Ozone layer:	No Freon or Halon

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: 2850.00
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.