TITANIUM SILICIDE

SAFETY DATA SHEET

DATE OF LAST REVISION: 04/28/15

Section 1: Identification

Product Name: Titanium Silicide
CAS Number: 12039-83-7 / EC Number: 234-904-3
Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110
For more information call: 412-469-8466
(Monday - Friday 9:00 AM -5:00 PM EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Warning

Hazard Statements:
H228 Flammable solid-powder
H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary Statements: None

HMIS Health Ratings (0-4):	**Powder**	**Pieces or higher**
Health:	1	1
Flammability:	2	0
Physical:	2	1

Section 3: Composition/Information on Ingredients

Chemical characterization: Inter-metallic compound

CAS# Description: 12039-83-7

Percentage: 100 wt%

EC number: 234-904-3

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing.

Inhalation: Remove to fresh air. If required, give artificial respiration. Seek medical advice.

Ingestion: Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Do not use water for metal fires - use CO_2, sand, extinguishing powder.

Flammability: Non-flammable, except as powder

Special Fire Fighting Procedure: Use full-face, self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in Section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits: None

Threshold Limit Value: None

Special Equipment: None

Respiratory Protection:	Dust respirator.
Protective Gloves:	Rubber Gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Color:	Grey
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	1760° C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	4.39 g/cc
Molecular Weight:	104.07 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Reacts with oxidizing agents, Bases
Chemical Stability:	Stable under recommended storage conditions
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal Oxide Fume

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause serious irritation

Skin: May cause irritation

Ingestion: May cause irritation

Inhalation: May cause irritation

Chronic: Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause pulmonary fibrosis known as silicosis. Titanium compounds are considered physiologically inert. There are no reported cases in the literature where titanium as such has caused human intoxication.

Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: Low

Persistence Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: N/A

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations

Section 14: TRANSPORT INFORMATION

Hazardous: Hazardous as powder only

Hazard Class: 4.1 Flammable solids
Packing Group: III
UN Number: UN3178
Proper Shipping Name: Flammable solid, inorganic, n.o.s. (Titanium silicide)

Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: No

Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.