Current Version: 2.0

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***Material Safety Data Sheet***

Identity: Aluminum Nitride Formula: AlN

Chemical Family: Metal Nitride Chem. Abstract No: 24304-00-5

TCSA: Product is Listed Cal. Molecular Wt: 40.99

SECTION I - GENERAL INFORMATION

Manufacturer: [Stanford Advanced Materials](http://www.sputtertargets.net) (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - INGREDIENTS/SUMMARY OF HAZARDS INFORMATION

Ingredients CAS# % TLV OSHA PEL Aluminum Nitride 24304-00-5 100 10mg(Al)/m3 15mg(Al)/m3

SECTION III – PHYSICAL DATA

Boiling Point: ND Vapor Pressure: ND Melting Point: ND Density: (gm/cc): 3.26

Evaporation Rate: ND Flash Point: N/A

Solubility in water: Decomposes Reaction with water: ND

% Volatile by Volume: 0 Melting Point (oC): 2150-2200

*Appearance and odor*: pale gray powder, ammonia odor in moist air.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Flashpoint/Method: NA

Autoignition Temp (oC): 1204oF for ammonia

Flammability: Non-flammable in most instances.

Extinguishing Media: Dry chemical, DO NOT USE WATER!

Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus, and full protective clothing. Use of water will cause evolution of ammonia which could be flammable. Unusual Fire and Explosion Hazards: Not a fire hazard in most conditions.

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*Unusual Fire and Explosion Hazards:* None recorded

SECTION V - REACTIVITY DATA

*Stability*: Stable

*Conditions to Avoid (stability)*: None

*Incompatibility:* Acids

*Hazardous Decomposition or Byproducts: Fumes*

*Hazardous Polymerization*: Will not occur

*Conditions to avoid (hazardous polymerization)*: None

SECTION VI - HEALTH HAZARD DATA

*Health hazards/Acute and Chronic):*

To the best of our knowledge, the acute and chronic toxicity of this substance is not full known.

*Routes of entry*: Inhalation? Skin? Eyes? Ingestion? Other?

*Signs and Symptoms of Overexposure:*

*Inhalation:* Dusts may cause pulmonary disease, nausea and or dizziness.

*Ingestion:* May cause abdominal pain, nausea, diarrhea, vomiting, and or dizziness.

*Skin*: May cause redness, itching, or burning.

*Eye*: May cause redness, itching, burning, swelling, and/or watering.

*Carcinogenicity:* NTP? No IARC Monographs? No OSHA Regulated? No

Medical Conditions Aggravated by Exposure: Pre-existing respiratory disorders.

*Emergency and First Aid Procedures:*

*Inhalation:* Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention

*Ingestion:* Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person

*Skin:* Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist

*Eye:* Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

*Steps to be taken in case material is released or spilled:*

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

*Waste disposal method:*

Dispose of in accordance with state, local, and federal regulations.

*Hazard Label Information:*

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

*Protective Equipment Summary (Hazard Label Information*):

NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent contact.

*Ventilation:*

Local Exhaust: To maintain concentration at low exposure levels. Mechanical (General): Recommended.

*Work/Hygienic/Maintenance Practices*:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established