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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION AlN	PRODUCT NAME Aluminum Nitride
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
Aluminum Nitride	24304-00-5	100	15mg (Al)/ m³	10mg(Al)/m³

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR Pale gray or green-gray, ammonia odor in moist air.
MELTING POINT (BASE METAL) 2150° C	SPECIFIC GRAVITY 3.26gm/cc

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N.A.	UEL N.A.
EXTINGUISHING MEDIA Class D or other extinguishing agent. DO NOT USE WATER.			
SPECIAL FIRED FIGHTING PROCEDURES Wear full face, self-contained breathing apparatus with full protective clothing. Isolate run-off to prevent environmental contamination.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Contact with acids may generate flammable hydrogen gas. Phosgene gas may be produced if chlorinated vapors are present.			

Section 5- REACTIVITY DATA

STABILITY

Stable

INCOMPATABILITY (MATERIALS TO AVOID)

Water, steam, moisture, chlorinated vapors and acids.

CONDITIONS TO AVOID

None

HAZARDOUS DECOMPOSITION PRODUCTS

Ammonia gas, aluminum hydroxide, hydrogen gas, phosgene and oxides of nitrogen.

Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD

Inhalation **Skin** **Skin Absorption** **Eye Contact** **Ingestion**

EFFECTS OF OVEREXPOSURE

INHALATION: Acute: May be an irritant and possible corrosive to the nose, throat and mucus membranes. May cause chemical pneumonia, chemical bronchitis and pulmonary edema. Ammonia gas may cause irritation to the nose and throat, dyspnea, bronchia spasms, chest pain, pulmonary edema and pink frothy sputum. Chronic: May cause pulmonary fibrosis. Repeated or prolonged exposure to ammonia gas may cause swelling of the mouth and throat to the point of asphyxiation, permanent injury or death.

INGESTION: Acute: May cause aluminum toxicity. Ammonia gas may cause nausea, vomiting and burns. Chronic: Aluminum has been implicated in Alzheimer's disease.

SKIN CONTACT: Acute: May be an irritant and possibly corrosive. Ammonia gas may cause irritation and chemical burns. Chronic: Repeated or prolonged exposure may cause tissue damage.

EYE CONTACT: Acute: May be an irritant and possibly corrosive. Ammonia gas may cause irritation and chemical burns. Chronic: Repeated or prolonged exposure may cause irreversible damage.

TARGET ORGANS: May affect respiratory system, lungs, skin and eyes.

EMERGENCY & FIRST AID PROCEDURES

INHALATION: Remove from exposed area to fresh air immediately; keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

SKIN CONTACT: Remove contaminated clothing; brush material off skin. Wash affected area with soap or mild detergent and large amounts of water until no evidence of the chemical remains. Seek medical attention.

EYE CONTACT: Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes. Seek medical attention.

Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES

Wear appropriate respiratory and protective equipment. Isolate the area where the spill occurred and provide ventilation and extinguish. Vacuum up the spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal.

WASTE DISPOSAL METHODS

Observe all federal, state and local regulations when storing or disposing.

Section 8- SPECIAL PROTECTION

VENTILATION

Local exhaust: Maintain concentration at or below the PEL.

EYE PROTECTION & PROTECTIVE CLOTHING

Wear Safety glasses for eyes. Wear rubber gloves on hands.

Section 9- SPECIAL PRECAUTIONS

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.

Some of the chemicals listed herein are research or experimental substances, which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a "technically qualified individual", as defined in 40 CFR710.2(aa)

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