



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

REVISION DATE: 1-25-01

CHEMICAL IDENTITY

LABEL IDENTITY	ALUMINUM NITRIDE	
CHEMICAL NAME/SYNONYMS	ALUMINUM NITRIDE	
FORMULA	AIN	
CHEMICAL FAMILY	METAL NITRIDE	
MOLECULAR WEIGHT	40.99	
CAS REGISTRY NUMBER	24304-00-5	
HAZARDOUS INGREDIENTS	ALUMINUM NITRIDE	
	TLV: 10mg/m3	OSHA REG: NO

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	May be a pale grey or green-grey pieces; Ammonia odor in moist air
BOILING POINT	NE or NA
VAPOR DENSITY (AIR=1)	No Data
VAPOR PRESSURE (mm Hg.)	No Data
% VOLATILE BY VOLUME (%)	NE or NA
REACTION WITH WATER	ND
EVAPORATION RATE (H2O=1)	ND
SOLUBILITY IN WATER	Decomposes to ammonia and aluminum hydroxide
MELTING POINT	2150 C
OTHER	ND

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NE or NA
AUTOIGNITION TEMPERATURE (°C)	ND
FLAMMABLE LIMITS	Non combustible
EXTINGUISHING MEDIA	Avoid water, use foam, CO2, dry chemical
SPECIAL FIRE FIGHTING PROCEDURES	Use full protective clothing and wear positive pressure self-contained breathing apparatus if product is involved in fire.
UNUSUAL FIRE & EXPLOSION HAZARDS	If product is involved in fire and water or halogen compounds are used as an extinguishing media, rapid decomposition to form ammonia, aluminum halide or nitric halide, may cause an explosion.



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HEALTH HAZARD INFORMATION

THRESHOLD LIMIT VALUE: **10mg/m3**
ROUTES OF ENTRY
INHALATION: **Yes, causes irritation**
SKIN: **Yes, causes irritation**
INGESTION: **Yes, may release ammonia gas**

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
Possible lung disease due to inhalation.
EFFECTS OF OVEREXPOSURE (acute and chronic):
Chronic INHALATION of the dust may cause lung disorders.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:
Irritation of skin, burning sensation to the eyes.

CARCINOGENICITY: NTP: IARC MONOGRAPHS: OSHA REGULATE:
Has not been identified as a known or suspected carcinogen.

EMERGENCY FIRST AID PROCEDURES: **(exit to clean fresh air)**
INGESTION: **Seek medical attention.**
INHALATION: **If pulmonary symptoms develop, seek medical attention.**
SKIN CONTACT: **Wash with water.**
EYE CONTACT: **Immediately rinse with water.**

REACTIVITY DATA

STABILITY	RT
CONDITIONS CONTRIBUTING TO UNSTABILITY	Stable at room temperature, but high humidity or moist air causes slow hydrolysis and formation of ammonia.
INCOMPATIBILITY (MATERIALS TO AVOID)	Water, steam, moisture, chlorinated vapors and acids.
HAZARDOUS DECOMPOSITION PRODUCTS	Ammonia gas, aluminum hydroxide, hydrogen gas, phosgene and oxides of nitrogen.
HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID	Will not occur None



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SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Sweep up and bag carefully keeping the materials away from water. If material already contains water, collect in chemical-resistant tank and neutralize with acid.

WASTE DISPOSAL METHOD:

Recycle or dispose in accordance with Local, State and Federal regulations.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION	Use dust mask respirators in over-exposure situations.
LOCAL EXHAUST	ND
MECHANICAL (general)	ND
SPECIAL	ND
OTHER PROTECTIVE CLOTHING	Respirator/dust mask
PROTECTIVE GLOVES	Recommended
EYE PROTECTION	Required

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

Aluminum Nitride is moisture sensitive, handle and store under argon or other inert gas.

TRANSPORTATION REQUIREMENTS

DOT CLASS:	N. C.
UN NUMBER:	N. C.
IMCO CLASS:	N. C.
OTHER:	N. C.

PRECAUTIONARY LABELING **NONE**

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

ND= NO DATA FOUND