



**SURMET CERAMICS CORPORATION
MATERIAL SAFETY DATA SHEET**

SECTION I

Product Name or Number (As it appears on label) Aluminum Nitride	Formula AlN
Manufacturer's Name and Address Surmet Ceramics Corporation 699 Hertel Ave., Buffalo, NY 14207	Emergency Telephone No. (716) 875-4091
	Date Revised March 2005

SECTION II – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity, Common Name)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Aluminum Nitride (AlN) CAS # 24304-00-5	N/A	10 mg/m³		100%

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A, decomposes at 2773K	Specific Gravity (H ₂ O = 1)	3.26
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (Air = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water Decomposed by water into Al(OH)₃ and NH₃.			
Appearance and Odor Beige-gray powder, exposure to moisture produces ammonia odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point Non-combustible	Flammable Limits N/A	LEL N/A	UEL N/A
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 and 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 explosion.			

SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid - Stable at room temperature, but high humidity or moist air causes slow hydrolysis and formation of ammonia.
	Stable	RT	
Incompatibility (<i>Materials to Avoid</i>) Avoid contact with water or water vapor.			
Hazardous Decomposition Products: Ammonia			
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

SECTION VI - HEALTH HAZARD DATA

Routes of Entry: Inhalation <u> X </u> Skin Contact <u> X </u> Ingestion <u> X </u>			
Health Hazards (<i>Acute and Chronic</i>) <u>Acute (short term) Overexposure</u> Skin Absorption: N/A Skin Contact: Irritation Eye Contact: Burning Ingestion: May release ammonia gas Inhalation: Irritation			
<u>Chronic (long term) Overexposure:</u> Chronic inhalation of the dust may cause lung disorders/lung disease.			
Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
Has not been identified as a known or suspected carcinogen.			OSHA 29 CFR 1910.1200
Signs and Symptoms of Overexposure Irritation of skin, burning sensation to eyes. Irritation of skin, burning sensation to eyes.			
Medical Conditions Generally Aggravated by Exposure Possible lung disease due to inhalation.			
<u>Emergency and First Aid Procedures:</u> Inhalation: Exit to clean and fresh air: If pulmonary conditions develop, seek medical assistance. Skin Contact: Wash with water. Eye Contact: Immediately rinse with water. Ingestion: Seek medical assistance			

SECTION VII – PRECAUTIONS FOR 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 all local, state, and federal regulations.
Precautions to be Taken in Handling and Storing Store away from water in sealed containers.
Other Precautions

SECTION VIII – CONTROL MEASURES

Respiratory Protection (<i>Specify Type</i>) Use dust mask respirators in dust over exposure situations.		
Ventilation	Local Exhaust Recommended	Special
	Mechanical (<i>General</i>)	Other
Protective Gloves Recommended	Eye Protection Required	
Other Protective Clothing or Equipment		
Work/Hygienic Practices		

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