



2225 W. Chandler Blvd., Chandler, AZ 85224 / 480-917-6000 / Fax: 480-917-6049

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: **AIN Green Tape**

CHEMICAL FAMILY: Ceramic Green Tapes

HMIS RATING: H 1 F 0 R 0

USE OF MATERIAL: High TC Ceramic Substrates

DATE ISSUED: November 12, 2009

EMERGENCY PHONE: 860-774-9605 (Monday – Friday 8 a.m. – 5 p.m. EST)

CHEMTREC: 800-424-9300 (U.S. & Canada) (24 Hours)
703-527-3887 (International – Call Collect) (24 Hours)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS No.</u>	<u>EINECS /ELINCS</u>	<u>%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>EU Classification</u>
Aluminum Nitride	24304-00-5	246-140-8	>95	NE	1 mg/m ³ (Resp.)	NC according to 67/548/EEC
Yttrium Oxide	1314-36-9	215-233-5	<5	NE	1 mg/m ³	NC according to 67/548/EEC

The material contains no other hazardous ingredients as defined in OSHA's Hazard Communication Standard 29 CFR 1910.1200 or EU directive 1999/45/EC.

3. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE MATERIAL: NA

LABELING REQUIREMENTS: NA

EFFECTS OF OVEREXPOSURE:

INHALATION: Dust generated during cutting or grinding can be irritating to mucous membranes.

EYE CONTACT: Dust generated during cutting or grinding can be irritating to mucous membranes.

SKIN CONTACT: May cause irritation.

INGESTION: May be harmful if swallowed.

CHRONIC: NE

4. FIRST-AID MEASURES

INHALATION:	Remove to fresh air. Obtain medical attention if symptoms persist.
EYE CONTACT:	Flush eyes with large amounts of water for 15 to 20 minutes. Obtain medical attention if symptoms persist.
SKIN CONTACT:	Immediately take off all contaminated clothing and flush area with water for 15 to 20 minutes. Obtain medical attention if symptoms persist.
INGESTION:	Do not induce vomiting. Obtain medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLASH POINT:	NA	Flammable Limits:	LEL	<u>NA</u>	UEL	<u>NA</u>
AUTOIGNITION TEMPERATURE:	NE					
EXTINGUISHING MEDIA:	<u> </u> Water Spray	<u> X </u> Foam	<u> X </u> CO ₂			
	<u> X </u> Dry Chemical	<u> </u> Other –				
SPECIAL FIRE FIGHTING PROCEDURES:	Firefighters should be equipped with self-contained breathing apparatus and turnout gear and not use water. Excessive amount of water will create ammonia formation.					
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.					

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Avoid breathing any dust generated from sanding, grinding, cutting, or punching.
ENVIRONMENTAL PRECAUTIONS:	NA
CLEANING METHODS:	Nothing special.

7. HANDLING AND STORAGE

HANDLING:	Wear suitable protective equipment (refer to Section 8).
STORAGE:	Store at room temperature. Avoid water contact. Do not freeze.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY PROTECTION:	None needed under normal conditions. If material is heated and odors are noticeable and/or irritating, a respirator meeting NIOSH requirements should be used. A qualified individual should evaluate each situation.
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VENTILATION

LOCAL:	Recommended for operations involving machining. Do not machine wet.
GENERAL:	

PERSONAL PROTECTION

HAND:	As needed for processing.
EYE:	As needed for processing.
OTHER:	As needed for processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR:	White
ODOR:	None
PHYSICAL STATE:	Solid
BOILING POINT:	NA
MELTING POINT:	140 – 200°C
FREEZING POINT:	NE
WATER SOLUBILITY:	Binder is water soluble.
SPECIFIC GRAVITY:	NE
RELATIVE DENSITY:	NE
PH:	NA

10. STABILITY AND REACTIVITY

STABLE UNSTABLE

MATERIALS TO AVOID:	Contact with water may produce ammonia.
HAZARDOUS POLYMERIZATION:	<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Does Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Ammonia, Nitrogen Oxides

11. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: NA

12. ECOLOGICAL INFORMATION

NA

13. DISPOSAL CONSIDERATION

PHYSICAL/CHEMICAL PROPERTIES AFFECTING DISPOSAL:	None
ENVIRONMENTAL TOXICITY DATA:	NA
WASTE DISPOSAL METHOD:	Dispose of in accordance with applicable federal, state, provincial, and local laws and regulations.

14. TRANSPORT INFORMATION

UN NUMBER:	Not Regulated
UN PROPER SHIPPING NAME:	Not Regulated
HAZARD CLASS (ES):	Not Regulated
PACKING GROUP:	Not Regulated
ENVIRONMENTAL HAZARDS:	Not Regulated

15. REGULATORY INFORMATION

INTERNATIONAL REGULATIONS:	
Canadian (DSL/NDL):	NE
Australian (ACIS):	NE
Korea (KECI):	NE
Japan (ENCS, MITI):	NE
China (SEPA):	NE

EU Directive 2002/95/EC (RoHS): Does not contain any intentionally added substances mentioned by the RoHS directive.

European:
Symbol Not classified according to directive 67/548/EEC (dangerous substances) and 1999/45/EC (dangerous preparations).

R-Phase(s):
S-Phase(s):

TSCA All materials are listed or exempt from TSCA listing.
(Toxic Substances Control Act):

CERCLA NA
(Comprehensive Emergency Response,
Compensation, and Liability Act):

SARA TITLE III NA
(Superfund Amendments and
Reauthorization Act):

311/312 HAZARD CATEGORIES: None

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>PERCENT BY WEIGHT</u>
NA	NA	NA

16. OTHER INFORMATION

NA = Not Applicable
NE = Not Established
NC = Not Classified

FILE: AIN.Tape.doc
99273
PREPARED BY: Greg Sullivan, CIH

REVISION ITEMS & DATE:

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