

MSDS

Material Safety Data Sheet

Kyanite Mining Corporation
Material Safety Data Sheet #0001

Revised: August 1, 2003

Printed: August 1, 2003

Page 1 of 4...

Kyanite

NFPA Rating: Health 3 Flammability: 0 Reactivity: 0 Pers. Protection E

SECTION 1: PRODUCT IDENTIFICATION

Trade Name: Kyanite
Chemical Name: Aluminum Silicate
Chemical Formula: $3\text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2$ Molecular Weight: 486.15
Synonyms: Cyanite, Disthene, Rhoetizite
CASRN: 1302-76-7

Technical Contact: Bill Kerber Telephone Number: (434) 983-2085 Emergency Telephone Number: (434) 983-2043

SECTION 2: HAZARDOUS COMPOSITION

CHEMICAL:	CAS NO:	RATIO (%):
Alumina*	1344-28-1	54 - 61%
Silica, Free Crystalline	14808-60-7	2.2% **

*This component is listed by EPCRA Section 313

**This is a typical percentage of naturally occurring free crystalline silica

SECTION 3: HEALTH HAZARD DATA

Crystalline Silica OSHA TWA: Respirable $\frac{10\text{mg}/\text{m}^3}{\% \text{SiO}_2 + 2}$

SECTION 3: HEALTH HAZARD DATA (continued)

Crystalline Silica	OSHA TWA:	Total Dust	$\frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2 + 2}$
Cristobalite	OSHA TWA:	1/2 the value from the mass formulae for quartz	
Alumina	OSHA TWA:	10 mg/m ³ as Dust	
ROUTES OF EXPOSURE:			
Inhalation	Y	Dermal	N Oral Y
SKIN AND EYE CONTACT:		Contact with dust can cause irritation	
INHALATION:		Health hazards can occur from excessive inhalation to silica dust Smoking can increase the risk of injury	
CHRONIC EFFECTS:		Exposure to crystalline silica may cause silicosis or pneumoconiosis Respiratory infections due to silicosis can progress with continued exposure and advanced age	
SIGNS AND SYMPTOMS OF EXPOSURE: Symptoms of silicosis are usually delayed			
CARCINOGEN LISTING: This material and / or components of the material are listed by the IARC and the NTP as a carcinogen This product is listed by the State of California as a carcinogen			
SPECIAL PRECAUTIONS:		This product contains crystalline silica; a chemical known to the State of California to cause cancer	

SECTION 4: FIRST AID MEASURES

SKIN AND EYE CONTACT:	
EYES:	Never rub eyes if exposed to dust Flush immediately with liberal amounts of water for at least 15 mins. Consult a physician if irritation persists
SKIN:	Wash with soap and water
INHALATION:	Remove victim to fresh air Consult a physician if irritation persists
ORAL INGESTION:	Consult a physician immediately

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	N/AP	Test Method:	N/AP
Lower Flammable Limit:	N/AP	Upper Flammable Limit:	N/AP

**RECOMMENDED EXTINGUISHING MEDIA:
USUAL FIRE AND EXPLOSION HAZARDS:**

Any type or style extinguisher
This mineral is non-combustible
Extinguishing apparatus in the surrounding
area is useable and sufficient
Non-flammable
No special procedures required

SPECIAL FIRE FIGHTING PROCEDURES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

It is recommended that a NIOSH approved N95 particulate respirator be worn at all times when visible dust is present either during product installation, removal or accidental releases

SECTION 7: HANDLING AND STORAGE

Use with adequate general and local ventilation
Notify safety personnel of major breakage, spill, wastes, etc.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**VENTILATION REQUIREMENTS:
PERSONAL PROTECTIVE EQUIPMENT
EYE PROTECTION:**

Use adequate, general and local systems for ventilation

It is recommended that workers wear safety glasses /
goggles when handling the raw material

SKIN PROTECTION:

It is recommended that workers wear appropriate
clothing and gloves when handling the raw material

RESPIRATORY PROTECTION:

A NIOSH approved N95 particulate respirator should be
worn at all times

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:
ODOR:
APPEARANCE:
pH:
BOILING POINT:
MELTING POINT:
SOLUBILITY IN WATER:
SPECIFIC GRAVITY:
EVAPORATION RATE:
VAPOR DENSITY:
VAPOR PRESSURE:**

Solid Mineral
None
Vitreous to pearly - greyish color
N/AP
N/AP
P.C.E. 36-37
Insoluble
3.5 - 3.7
N/AP
N/AP
N/AP

SECTION 10: STABILITY AND REACTIVITY

NORMALLY STABLE:

Highly stable under ordinary conditions and in itself non-toxic

INCOMPATIBLE MATERIALS:

None

HAZARDOUS DECOMPOSITION PRODUCTS:

In high temperature, quartz can change crystal structure to form cristobalite (>1470°C) and has greater health hazards than quartz

HAZARDOUS POLYMERIZATION:

There are no repeating structural units of the original molecules
Hazardous polymerization will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

TEST TYPE:	RESULT TYPE:	ANIMAL SPECIES:	HAZARD RANK:
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N/D

N/D

N/D

N/D

SECTION 12: ECOLOGICAL INFORMATION

N/D

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Dispose of product in accordance with applicable federal, state and local regulations
Use waste containers suitable for transportation and disposal in accordance with federal, state and local regulations

SECTION 14: TRANSPORTATION INFORMATION

DOT HAZARD CLASS:

N/AP

DOT HAZARDOUS MATERIALS:

N/AP

SECTION 15: REGULATORY INFORMATION

In the event of a spill, containerize the material in accordance with all Federal, State and Local regulations.
Follow all Federal, State and Local regulations for waste disposal.
Follow all applicable SARA Title III reporting guidelines for this product.

SECTION 16: OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guaranty or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

This information is solely for your consideration and interpretation.