

MATERIAL SAFETY DATA SHEET

MC-X-01046 (3/85)



SPEC./MSDS NUMBER
Rev. 3

DATE
December 15, 198

PRODUCT IDENTIFICATION

TRADE NAME Asbestos	GENERIC NAME Crocidolite Asbestos
MANUFACTURER'S NAME Griqualand Exploration & Finance Corp.	CAS NUMBER 1332-21-4
ADDRESS (STREET) P. O. Box 69	PHONE NUMBER (EMERGENCY) (011-27-11) 339-5458
CITY Kuruman, Cape Province, RSA	CHEMICAL STRUCTURE Na₂Fe₅(OH)Si₄O₁₁

I • PRODUCT INGREDIENTS

CHEMICAL AND/OR COMMON NAME	CAS NUMBER	%	TLV/PEL
Crocidolite Asbestos	1332-21-4	100.0	*
* Occupational Exposure Limits			
PEL	TLV		
0.2 f/cc - 8 Hr. TWA	0.2 f/cc		
ACGIH. Documentation of TLV's at 27			
OSHA Standard at 29 CFR 1910.1001			
(Fibers measured are those longer than 5 microns.)			

II • PHYSICAL DATA

BOILING POINT N/A	VAPOR PRESSURE N/A	SPECIFIC GRAVITY 3.2-3.3	MELTING POINT N/A
SOLUBILITY IN WATER N/A	VAPOR DENSITY (AIR = 1) N/A	PERCENT VOLATILE N/A	EVAPORATION RATE (= 1) N/A

APPEARANCE AND ODOR

Blue Fibrous dry material - no odor.

III • FIRE AND EXPLOSION DATA

FLASH POINT N/A	FLAMMABLE LIMITS N/A	FLAMABLE LIMITS N/A	LEL N/A	UEL N/A
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EXTINGUISHING MEDIA

Non-flammable.

SPECIAL FIREFIGHTING PROCEDURES

None

UNUSUAL FIRE OR EXPLOSION HAZARDS

None

IV • HEALTH HAZARD INFORMATION

HAZARD BY ROUTES OF EXPOSURE (Indicate chronic and acute)

INHALATION Chronic-Avoid inhalation. Overexposure can cause asbestosis, a scarring of the lung Pleural thickening, effusion and plaques are nondisabling conditions, seen separately or together that have been associated with exposure. The IARC has determined that there is sufficient evidence for the carcinogenicity of asbestos in humans. Caution is advised as breathing asbestos may cause serious bodily harm.

INGESTION

No increased hazard evidenced.

EYE

Acute - may cause eye irritation.

SKIN CONTACT/ABSORPTION

Acute - may cause skin irritation.

SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV Asbestosis is associated with symptoms of labored breathing, chest pain, weakness and chest tightness. Symptoms are not usually manifest until 15-20 years after exposure.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED

Respiratory ailments.

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ANY OF PART I LISTED AS CARCINOGENS? (NTP, IARC, OSHA)

Yes.

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HEALTH HAZARD INFORMATION CONTINUED ON BACK

V • HEALTH HAZARD INFORMATION (Continued) SEE ATTACHED FOR FURTHER

EMERGENCY/FIRST AID PROCEDURES

INFORMATION.

INHALATION Avoid breathing dust when handling, dumping and mixing. Use respirator if airborne concentrations exceed OSHA limits (see Sec. VI).

INGESTION

EYE CONTACT

In case of eye irritation, gently rinse with water. If irritation persists, get medical help.

SKIN CONTACT

Remove slivers from skin promptly. If irritation persists get medical help.

SKIN ABSORPTION

N/A

VI • CONDITIONS FOR SAFE USE (When over TLV) SEE ATTACHED FOR FURTHER

RESPIRATORY PROTECTION

See attached.

INFORMATION.

EYE PROTECTION

See "Other . . ." this Section.

PROTECTIVE GLOVES

See "Other . . ." this Section.

OTHER PROTECTIVE CLOTHING/EQUIPMENT If the PEL limit is exceeded, clothing providing whole body covering must be supplied and its use required. Employees who work in areas where airborne

exposure is above the PEL must shower at the end of the work shift.

Local ventilation if engineering controls are inadequate (See OSHA Title 29 CFR Part 1910.1001, c (i), (ii).

VII • REACTIVITY DATA

IS MATERIAL STABLE?

Yes

WILL HAZARDOUS POLYMERIZATION OCCUR?

No

INCOMPATIBILITY

N/A

CONDITIONS TO AVOID

Avoid creating and breathing dust.

HAZARDOUS DECOMPOSITION PRODUCTS

None

VIII • SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED Avoid creating or breathing dust. Collect dust by HEPA Vacuum or in wet state (wet sweeping, wet wiping) to prevent emission of airborne fibers.

WASTE DISPOSAL METHOD Bags, waste and scrap should be disposed of in a manner which all avoid airborne concentrations of asbestos, such as the use of dust-tight trash bags or containers. Refer to and comply with all applicable federal, state and local regulations.

RCRA REGULATED
☐ Yes ☐ No

RCRA NUMBER

CERCLA (Superfund) REPORTABLE QUANTITY

DOT REGULATED
☒ Yes ☐ No

DOT PROPER SHIPPING NAME
Asbestos

DOT HAZARD CLASS
ORM-C

DOT NUMBER
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IX • SPECIAL PRECAUTIONS SEE ATTACHED FOR FURTHER INFORMATION

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE Do not create, or breath dust. Do not dry sweep or use air hose for cleaning. Do not take protective clothing or equipment home. Use no hooks in loading

unloading. Protect containers from damage. Do not open containers in a manner that can release dust without providing proper enclosure or control measures. Use dust suppression control measures such as ventilation or wetting at all stages of handling, use and disposal. Follow good house

keeping practices, such as wet wiping dusty surfaces, to prevent accumulation of asbestos containing dust. Avoid inhalation.

Substantial medical evidence indicates that smoking increases the risk from asbestos exposure. Those working with asbestos should not smoke.

PREPARED BY

PHONE NO.

TITLE

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, THE MANUFACTURER MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

FORM 5-1-1

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MATERIAL SAFETY DATA SHEET

Section V - Health Hazard Information (continued)

Special Note: A medical surveillance program must be established for asbestos-exposed persons in accordance with the requirements of the Occupational Safety and Health Administration's standard for asbestos (29 CFR Part 1910.1001).

Section VI - Conditions for Safe Use (When over TLV) (continued)

Respiratory Protection:

Airborne Concentration of Asbestos:

Required Respirator:

Not in excess of 2 f/cc
(10 x PEL).

1. Half-mask air-purifying respirator equipped with high-efficiency filters.

Not in excess of 10 f/cc
(50 x PEL).

1. Full facepiece air-purifying respirator equipped with high-efficiency filters.

Not in excess of 20 f/cc
(100 x PEL).

1. Any powered air-purifying respirator equipped with high-efficiency filters.
2. Any supplied-air respirator operated in continuous flow mode.

Not in excess of 200 f/cc
(1000 x PEL)

1. Full facepiece supplied-air respirator operated in pressure demand mode.

Greater than 200 f/cc
(1000 x PEL or unknown
concentration.)

1. Full facepiece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus.

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- Note:
- a. Respirators assigned for higher environmental concentrations may be used at lower concentrations.
 - b. A high efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.2 micrometers or larger.
 - c. All respirators must be NIOSH/MSHA approved under 30 CFR Part 11.

Section IX - Special Precautions (continued)

Note: 29 CFR 1910.1001 contains other specific requirements and should be consulted in its entirety prior to working with asbestos.

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BRAKEGATE LIMITED

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West Allis, Wisconsin 53214
414/383-2020

December 22, 1986

A. Z. Wang
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[Signature] 1/2

Mr. Paul Huang
J-M A/C PIPE CORPORATION
1051 Sperry Road
Stockton, CA 95206

Subject: MSDS Update

Dear Paul:

Please find enclosed an updated MSDS for your attention on:

Crocidolite Asbestos Fiber

The MSDS provides information pertaining to OSHA rulemaking 29 CFR parts 1910 and 1926 PEL revision. We strongly recommend you refer directly to the OSHA rulemaking for compliance requirements when handling, using and disposing of asbestos.

While Brakegate Ltd. believes the MSDS information and recommendations are accurate as of the date thereof, it makes no warranty with respect thereto and disclaims all liability from reliance thereon.

Sincerely yours,

BRAKEGATE LIMITED

B. Heering
B. Heering

cc: Darrel Wilkinson, Stockton

Enclosure - MSDS Rev. No. 3

JAN. 02 1987 Director: Bernard Heering

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