

MATERIAL SAFETY DATA SHEET

ST0350541

2319

MSDS 01046 (3/85)

SPEC./MSDS NUMBER

DATE

Nov. 4, 1985

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 $\text{Na}_2\text{Fe}_3(\text{OH})\text{Si}_4\text{O}_{11}$

I • PRODUCT INGREDIENTS

CHEMICAL AND/OR COMMON NAME	CAS NUMBER	%	TLV/PEL
Crocidolite Asbestos	1332-21-4	100.0	*
*Occupational Exposure Limits			
PEL	TLV		
2.0 f/cc - 8 hr. TWA	0.2 f/cc		
Ceiling conc.	ACGIH, Documentation of		
10.0 f/cc	TLVs at 27		
OSHA Standard at			
29 CFR 1910.1001			
(Fibers measured are those longer than 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
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 lab 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.

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

Yes

PLAINTIFF'S

DOW

DOW

MATERIAL SAFETY DATA SHEET

ST0350541

2319

MSDS-101 (3/85)

SPEC./MSDS NUMBER

DATE

Nov. 4, 1985

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	STATE	RSA
ZIP		CHEMICAL STRUCTURE	Na ₂ Fe ₅ (OH)Si ₄ O ₁₁

I • PRODUCT INGREDIENTS

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

II • PHYSICAL DATA

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

APPEARANCE AND ODOR

Blue fibrous dry material - no odor.

III • FIRE AND EXPLOSION DATA

FLASH POINT	FLAMMABLE LIMITS	FLAMABLE LIMITS	LEL	UEL
n/a	n/a	n/a	n/a	n/a
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.

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

Yes

PLAINTIFF'S

EXHIBIT

DOW-501

DOW 06463

ST0350542

V • HEALTH HAZARD INFORMATION (Continued)

EMERGENCY/FIRST AID PROCEDURES

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)

RESPIRATORY PROTECTION - Reusable or single use air purifying respirator for exposures which do not exceed the PEL (see Sec. I) by more than 10X. Powered air purifying respirator for exposures more than 10X but less than 100X the PEL. Type "C" continuous flow or pressure demand supplied air respirator for exposures more than 100X the PEL. All respirators must be NIOSH approved.

EYE PROTECTION

(see "Other.." this Sec.)

PROTECTIVE GLOVES

(see "Other.." this Sec.)

OTHER PROTECTIVE CLOTHING/EQUIPMENT - If the ceiling concentration (see Sec. I) limit is exceeded, clothing providing whole body covering must be supplied and its use required.

VENTILATION REQUIREMENTS - Local ventilation if engineering controls are inadequate. (see OSHA Title 29 CFR Part 1910.1001, c (1), (11)).

VII • REACTIVITY DATA

IS MATERIAL STABLE?

Yes

WILL HAZARDOUS POLYMERIZATION OCCUR?

No

INFLAMMABILITY

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 HEP 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. Ensure that disposal complies 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

-

IX • SPECIAL PRECAUTIONS

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 or unloading. Protect containers from damage. Prevent dust release without providing proper enclosure or control measures. Use dust suppression control measures, such as ventilation or wetworking at all stages of handling, use and disposal. Follow good housekeeping practices, such as wet wiping dusty surfaces, to prevent accumulation of asbestos containing dust. Avoid inhalation.

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

PREPARED BY

PHONE NO.

TITLE

DOW 06464

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.