

TR-1900-8

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OSHA NO. 10-A, 337

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

PENGAD-Bayonne, N.J.

**PLAINTIFF'S
EXHIBIT**
JMMC-2

MINED BY: Cape Asbestos South SECTION I		EMERGENCY TELEPHONE NO.
Africa (Pty) Limited		(312) 726-8515
SOLD BY: Associated Mineral Corp. A. G.		
ADDRESS: Number, Street, City, State, and ZIP Code c/o Continental Products Corp., 150 N. Wacker Dr., Chgo, Ill. 60606		
CHEMICAL NAME AND SYNONYMS	CROCIDOLITE ASBESTOS	TRADE NAME AND SYNONYMS N/A
CHEMICAL FAMILY	AMPHIBOLE	FORMULA $Na_2(FeMg)_5Si_8O_{22}(OH)_2$

SECTION II - HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

SECTION III - PHYSICAL DATA			
BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O=1)	3.3-3.4
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ *1)	
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Blue fibre - no odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	FLAMMABLE LIMITS	Lst	Ust
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS Material totally non inflammable and non explosive.			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	ACGIH - 2mppcf
EFFECTS OF OVEREXPOSURE	Only long term effects
EMERGENCY AND FIRST AID PROCEDURES	
N/A	

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	N/A
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Rebag in impermeable bags
WASTE DISPOSAL METHOD	
Dusty waste to be disposed of in sealed impermeable containers.	

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) Type specified for asbestos dust by U. S. Bureau of Mines.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		
Overalls and headgear		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Store in impermeable bags or containers which do not permit the escape of dust.
OTHER PRECAUTIONS	

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
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SECTION I

MANUFACTURER'S NAME Griqualand Exploration and Finance Corp.		EMERGENCY TELEPHONE NO. (27-11) 39-5458
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 69, Kuruman, Cape Province, Rep. of South Africa		
CHEMICAL NAME AND SYNONYMS Crocidolite Asbestos		TRADE NAME AND SYNONYMS Asbestos
CHEMICAL FAMILY Fibrous Mineral Silicate	FORMULA $\text{Na}_2\text{Fe}_5(\text{OH})\text{Si}_4\text{O}_{11})_2$	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS		N/A	BASE METAL		N/A
CATALYST		N/A	ALLOYS		N/A
VEHICLE		N/A	METALLIC COATINGS		N/A
SOLVENTS		N/A	FILLER METAL PLUS COATING OR CORE FLUX		N/A
ADDITIVES		N/A	OTHERS		N/A
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Crocidolite Asbestos Fiber Approx. 100 %					*
(*For TLV - See Section V)					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H ₂ O=1)	3.2-3.3
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	None		
APPEARANCE AND ODOR Blue fibrous dry material - no odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS	N/A	Lel	Uel
EXTINGUISHING MEDIA Material is non-flammable. No fire or explosion hazard.					
SPECIAL FIRE FIGHTING PROCEDURES See Above.					
UNUSUAL FIRE AND EXPLOSION HAZARDS See Above.					

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE OSHA Exposure Limits Effective 7/1/76. The 8 hr. time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed two fibers, longer than 5 micrometers, per cubic centimeter of air. **Ceiling Concentrations.** No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter of air. (Refer to OSHA Stand. for Exposure to Asbestos Dust, Fed. Register, Vol. 37, No. 110 June 7, 1972, Para. (h)(2).

Avoid breathing excessive dust when handling, dumping and mixing. See Caution Label on bag. Breathing asbestos dust may cause serious bodily harm.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) N/A			
HAZARDOUS DECOMPOSITION PRODUCTS None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Vacuum spillage. Repair broken bags. If sweeping is necessary, wet down spillage.
Use approved respiratory equipment when required.

WASTE DISPOSAL METHOD
Disposal of waste in accordance with OSHA Standard for Exposure to Asbestos Dust, Federal Register, Volume 37, No. 110 - Wednesday, June 7, 1972, paragraph (h)(2).

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Use respirators as recommended by the OSHA Standard for Exposure to Asbestos Dust, Federal Register, Vol. 37, No. 110 - 6/7/72 Para. (d).

VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General) Control with mechanical dust collection equipment to within TLV. (See Amer. Nat'l Std. Institute Booklet, 29.2-1971).	

PROTECTIVE GLOVES	EYE PROTECTION
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OTHER PROTECTIVE EQUIPMENT Use special clothing as required by OSHA Standard for Exposure to Asbestos Dust, Fed. Register, Vol. 37, No. 110 - 6/7/72, paragraph (d).

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Maintain good housekeeping practices. Vacuum clean waste and place in closed containers.

OTHER PRECAUTIONS SEE CAUTION LABEL ON BAG.

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

Form OSHA-20
Rev. May 72

D 003711

DENVER WHQ
PIPE DIVISION

February 7, 1979

A.C. Daley - WHQ 2-30
P.E. Dix - Denver R&D
Research Info Center - Denver R&D
M.G. Sivetts - WHQ 2-27
W.R. Johnson - WHQ 3-06
C.G. Bryant - MANVILLE 21
B.E. Liming - GREEN COVE
A.M. Curry - DENISON

E.C. Bandovich - WAUKEGAN
F. Peterson - LONG BEACH
T.W. Duecker - STOCKTON
E. VanDerMeer - WHQ 2-29
D. Robinson - WHQ 3-06
N. Henn - 2-25

PURCHASE SPECIFICATION: TR-1000-5

TRANSITE, PORTLAND CEMENT FOR TRANSITE PIPE

At the request of Research the attached Purchase Spec was revised deleting reference to Type III Cement.

At the same time the Zero page was revised to include the issue of M.S.D.S. forms received from National Gypsum Co.

Add the following to your file and cancel any prior issues.

Purchase Spec: TR-1000-5
Pages: Zero and One
M.S.D.S. (2) From National Gypsum Co.

J.J. Kriso

tdh
Attachments

D 003712