PLAINTIFF'S EXHIBIT
UC-981

UNION CARBIDE CORPORATION • METALS DIVISION • P. O. BOX 579 • NIAGARA FALLS, N.Y. 14302 • TEL: 716-278-3376

July 17, 1980

Edward J. Abrams
Director-Research & Development
Hardman Incorporated
600 Cortlandt Street
Belleville, NJ 07109

Dear Mr. Abrams:

In response to your letter of July 7, the D.O.T. classification for "Calidria" asbestos RG-144 is "Asbestos ORM-C." It has no flashpoint as asbestos is inflammable.

We have responded to your letter of April 2, a copy of which is attached. We have no record of having received your letter of April 18. Please send a copy to my attention if additional information is required.

Very truly yours,

Gordon L. Dickson
Technical Sales Representative
Eastern Region

GLD:dal
Attachment

CC: Ms. Lesley Baker

1). Trade Name "Calidria" asbestos RG-144

2). Chemical Name Chrysotile asbestos

3). Boiling Point NA

4). C A S Number 1332-21-4

5). Amine Value NA

6). Composition $M_{8_6}(OH)_8Si_4O_{10}$

7). DOT Hazard Classification ORM-C

8). DOT Proper Shipping Name asbestos

9). Equivalent Weight ?

10). Flash Point NA

11). Mohs Hardness NA

13). Molecular Weight 554.27

21). SPI Classification ?

22). Supplier Bouffard Associates, 179 Post Rd. West, Westport, CT 06880

23). Telephone 203/227-7971

24). Acidity % HCL NA

25). Vapor Pressure NA

26). Viscosity NA

27). Water % $\cong$ 2% (typical property)

28). Weight/Gallon NA

Company Name: Union Carbide Corporation
Metals Division
P. O. Box 579
Niagara Falls, NY 14302

Signature: Gordon L Dickson
Gordon K. Dickson
Technical Sales Rep
Eastern Region

716/278-3371

B. L. Ingalls
Niagara Falls - File

UNION CARBIDE ASBESTOS

THE DISCOVERY COMPANY

UNION CARBIDE CORPORATION • MINING & METALS DIVISION • P.O. BOX 579 • NIAGARA FALLS, N.Y. 14302 • TEL: 716-285-3311

December 14, 1971

Mr. E. Abrams
Hardman Incorporated
600 Cortlandt Street
Belleville, New Jersey 07109

Dear Mr. Abrams:

Enclosed is the completed hazardous data sheet on 144 as per your request via Mr. Mike Kovach.

Should you have any questions or if you should need any further assistance, please do not hesitate to contact us.

Very truly yours,

B. L. Ingalls
Manager - Eastern Region
Sales and Technical Service

BLI:cjb
Encl.

HARDMAN INCORPORATED

BELLEVILLE, NEW JERSEY 07109 (201) 751-3000

SUPPLIER Union Carbide Corp.
Plastics Div.
935 Allwood Rd.
Clifton, N. J. 07012

PRODUCT Resin Grade 144

I. HAZARDOUS CLASSIFICATION

		SPI	OTHER
Effect on Skin	(Table 1)	-	None
Ingestion	(Table 3)	- LD_{50}	Unknown
Inhalation	(Table 3)	- LC_{50}	Chronic toxicity equa to asbestos in genera
Percutaneous Absorption	(Table 3)	- LD_{50}	None
Effect on Eyes	(Table 3)	Foreign body, as with any dust	-
Flash Point	(Table 5)	-	-
Pressure Generating	(Table 5)	-	-
Other		-	-

Threshold Limit Value 5 fibers > 5 micron/ml

(Estimate if not on current list of ACGIH*)

II. CHEMICAL AND PHYSICAL PROPERTIES

		Test Method		
Flash Point	- °C.		Vapor Pressure	- mm Hg
Fire Point	- °C.		ph/Concentration	9.0-9.5 in 4% aqueous slurry
Auto Ignition	- °C.			

Under what conditions does material decompose and what are decomposition products?
Thermal decomposition - converts to Forsterite at 750°C anamorphous, non-toxic mineral

List by chemical name and percentage any component of formula which may have toxic, irritant, flammable or explosive properties: See attached

Compound	Approx. %	Toxic	Irritant	Flammable	Explosive
					(✓)
					(✓)
					(✓)

*American Conference of Governmental Industrial Hygienists

III. STORAGE AND HANDLING

Not below - °F.

Not above - °F.

Fire Extinguisher (✓) - ABC - CO_2 - Other: -

In case of container breakage or leakage Avoid breathing dust - remove immediately

I.C.C. regulations on transporting and labelling -

Red Label (✓) ___ Yes X No

Explosive Limits - % To - % By volume in air

IV. FIRST AID AND PERSONAL SAFETY

Recommended, pre-placement or periodic medical examination (health standard, clinical test, frequency, etc.) Normal pre-placement examination including Xray

Recommended personal protective equipment is Local exhaust ventilation to control dust. Respirators if dust control cannot be provided. Respirators with filter adequate for asbestos dust.

Antidote and First Aid

Skin Contact -

Eye Contact Treat as foreign body as with any dust.

Inhalation Not applicable

Ingestion Not applicable

V. INFORMATION FURNISHED BY

Name B. L. Ingalls
Manager - Eastern Region
Title Sales & Technical Service
Mining & Metals Division
Company Union Carbide Corporation
P. O. Box 579
Address Niagara Falls, New York 14302

Date December 14, 1971

Telephone (716) 285-3311 Ext. 6661
Area Code

TABLE I

TYPICAL CHEMICAL ANALYSES

Component	Analysis*, % RG-144
MgO	45.25
SiO_2	41.10
Al_2O_3	0.30
Fe (Total)	(1.69)
Fe^{2+}, as FeO	0.81
Fe^{3+}, as Fe_2O_3	1.51
L.O.I. at 1000°C (water + CO_2)	13.53
C as CO_2	(0.50)
Ni as NiO	0.20
Ba	<0.01
Total	99.70

*Product dried at 105°C

TABLE II

TYPICAL RESULTS OF SPECTROGRAPHIC ANALYSIS

Element Detected	Estimated Amount, RG-144
Al	0.08-0.8
Ca	0.02-0.2
Co	0.008-0.08
Cr	0.08-0.8
Cu	-
Fe	0.2-2
Mg	Major
Mn	0.02-0.2
Na	-
Ni	0.1-1
Si	Major
Ti	0.02-0.2
V	0.001-0.01