PLAINTIFF'S EXHIBIT

UC-5468

THE DISCOVERY COMPANY

Calidria ASBESTOS

# "CALIDRIA" ASBESTOS SG-130 AND SG-210
## For Tape Joint Compounds

### Lowers Costs Two Ways

CALIDRIA Asbestos acts as a bodying and secondary thickening agent permitting formulation of lower density, more economical tape joint compounds without the sacrifice of performance. CALIDRIA Asbestos is produced by a proprietary manufacturing process that yields unusually high fiber content and more complete fiber liberation from the natural bundles. As a result, CALIDRIA Asbestos goes up to twice as far, pound for pound, as commercial grades of asbestos containing large amounts of other filler materials that have no specific desirable effects on tape joint compound properties.

### Reduces Cracking

The fibers of CALIDRIA Asbestos behave as an active lyophobic colloid in aqueous dispersion; by this mechanism CALIDRIA Asbestos increases tape joint compound liquid cohesive strength during drying. Increased liquid cohesive strength greatly reduces the tendency for cracks over nail holes, in thick sections at the center of the joint, and along the feathered edges.

### Enhances Sandability

CALIDRIA Asbestos contains mainly chrysotile fiber and is essentially free from abrasive contaminants, such as magnetite and serpentine rock dust. This composition results in a low density product, free from contaminants that interfere with sanding.

### Improves Uniformity

Narrow and well-controlled particle size distribution, low alkalinity and high brightness are characteristic of CALIDRIA Asbestos. These properties are consistent from batch to batch and improve the uniformity of tape joint compounds using CALIDRIA Asbestos.

### Suggestions for Use of CALIDRIA Asbestos

CALIDRIA Asbestos can be readily used in your present tape joint compound formulation. Add approximately one-half the proportion of asbestos you now use. Increase the proportion of calcium carbonate or other inert filler to make up for the lower quantity of asbestos. You may also be able to use slightly more water in your ready-mix and maintain your present viscosity level. No other changes in your

October, 1968
F-42258

CALIDRIA, CELLOSIZE, UCAR, and UNION CARBIDE are trade marks of Union Carbide Corporation.

M-15

UNION CARBIDE CORPORATION · CHEMICALS AND PLASTICS · 270 PARK AVENUE, N.Y., N.Y. 10017

GP 013011

# "CALIDRIA" ASBESTOS SG-130 AND SG-210

For Tape Joint Compounds

**Suggestions for Use of CALIDRIA Asbestos (Continued)**

formulation or manufacturing procedure are required.

CALIDRIA Asbestos SG-130 has the coarser particle size; it finds use for bedding compounds or perhaps spackling compound. The SG-210 has the finer particle size and is favored for topping compounds, all-purpose compositions, texture paints, and similar formulas.

## A Suggested Ready-Mix Tape Joint Compound For Use With CALIDRIA Asbestos

| | Parts by Weight Dry Basis |
|---|---|
| Fillers: | |
| Calcium Carbonate, No. 1 White (Thompson Weinman) | 61.42 |
| Mica, P80F (Western Mica) | 21.00 |
| Clay, ASP-400 (Minerals and Chemicals Philipp Corp.) | 4.00 |
| CALIDRIA Asbestos, SG-210 (Union Carbide) | 4.58 |
| Binder: | |
| UCAR Latex 131 (Union Carbide) | 6.60* |
| Workability Control Agent: | |
| CELLOSIZE Thickener, TJC Grade (Union Carbide) | 0.50 |
| Drying Control: | |
| Ethylene Glycol (Union Carbide) | 1.00 |
| Defoamer: | |
| "Nopco" PD-1 (Nopco Chemical Company) | 0.10 |
| Dispersant: | |
| "Daxad" 30 (Dewey & Almy Chemical Div.) | 0.60* |
| Bacteriostat: | |
| "Dowicide" A (Dow Chemical Co.) | 0.20 |
| | 100.00 |

Total Water: about 56 parts by weight per 100 parts dry solids

*Contained solids basis



GP 013012

*Union Carbide trial exhibit UC-5468: Union Carbide Product Bulletin: "Calidria" Asbestos SG-130 and SG-210 for Ta...* Published by AsbestosClaims.Law
ACL Doc 19898 · Page 2 of 6 asbestosclaims.law/library/19898/2

# "CALIDRIA" ASBESTOS SG-130 AND SG-210

For Tape Joint Compounds

## Typical Product Characteristics

| | CALIDRIA Asbestos | |
|---|---|---|
| | SG-130 | SG-210 |
| Reflectance (G.E. Photovolt) | 68% | |
| Contained magnetite | 2% max. | |
| Alkalinity (as % of $Na_2O$) | 0.05 to 0.06 | |
| pH (5% aqueous slurry) | 8.5 to 9.5 | |
| Surface area (BET) | 50 to 60 $m^2/g$. | |
| Oil Adsorption (DOP ml. 100g asbestos) | 90 to 100 | 110 to 120 |
| Wet Bulk, settled vol. (ml.) 10g/250 ml./1 hr. | 200 | 220 |
| Dry Bulk ($ft./ft.^3$) | 7 to 8 | 5 to 6 |
| Water absorption (wt. % in filter cake) | 55 to 60 | 62 to 65 |
| Size distribution (cumulative % retained) | | |
| Wet Screen mesh size | | |
| 100 | 5 | Trace |
| 200 | 17 | 3 |
| 325 | 28 to 32 | 10 to 15 |

## Packaging and Shipping Information

Product Form – Opened (finely ground) chrysotile asbestos fiber.

Packaging –

| | CALIDRIA Asbestos | |
|---|---|---|
| | SG-130 | SG-210 |
| One Package | 40 lb. | 30 lb. |
| Pallet Weight | | |
| Carload | 1,600 lb. | 1,050 lb. |
| Truckload | 2,000 lb. | 1,500 lb. |

Shipping –

Classification – asbestos shorts

Rail point of origin – Welby, California (King City, California)

## TOXICOLOGICAL PROPERTIES

It has been known for many years that some persons working in asbestos production were prone to develop a disabling lung disease. In time, this condition became known as asbestosis and was related to exposure to high concentrations of asbestos dust. With further experience, it was found that men could work with asbestos without development of lung disease if dust concentrations were kept below a certain level. It is now generally accepted that a man can work a 40-hour week for a lifetime without developing asbestosis if the asbestos dust particle count is kept at or below 5 million particles per cubic foot of air. This dust concentration of 5 million particles per cubic foot of air is the Threshold Limit Value for asbestos, and no cases



GP 013013

*Union Carbide trial exhibit UC-5468: Union Carbide Product Bulletin: "Calidria" Asbestos SG-130 and SG-210 for Ta...* Published by AsbestosClaims.Law
ACL Doc 19898 · Page 3 of 6 asbestosclaims.law/library/19898/3

TOXICOLOGICAL PROPERTIES (Continued)

of asbestosis are believed to have occurred when exposures have been maintained at or below this level, despite large-scale utilization (now approaching one million tons per year in the U.S.A.). This concentration of dust is generally not visible in the average work area unless a beam of light causing a Tyndall effect is present. Usually the dust concentration must be from 8-10 million particles per cubic foot before its presence is visible in average lighting conditions.

Several years ago, it was reported that there was an increase in the incidence of cancerous tumors, especially of the lung, associated with asbestosis. Recently there have been reports of some cancers occurring in individuals exposed to asbestos dust, but who have not developed clinical asbestosis. It is believed by most authorities that these cases have been associated with exposures significantly exceeding the Threshold Limit Value. A major manufacturer of asbestos products who also mines asbestos has not been able to show an increase in cancerous growths among workers where dust concentrations were maintained at the Threshold Limit Value.

Control of asbestos dust exposure is therefore necessary. The control methods are the standard ones applicable to a variety of dusty operations. They include closed flow systems, wet processes where possible, and adequate exhaust ventilation where openings in the system are necessary. Pelletizing is sometimes used to improve the handling characteristics of otherwise dusty materials. Where satisfactory containment to stay within the Threshold Limit Value is impractical or impossible, efficient and reliable respirators are available for the protection of the employee. A program of environmental monitoring in manufacturing operations is highly desirable to determine that Threshold Limit Values are not being exceeded. Employees should wear respirators where dusting occurs in finishing products such as sanding taped joints.

Pre-employment and periodic physical examinations of workers are desirable. These should include chest X-rays to insure that the worker has no chest condition prior to work with asbestos and to determine that no lung changes are resulting from work with asbestos.

In conclusion, while asbestos dust in excess of the Threshold Limit Value is potentially harmful, as are many other dusts encountered in industry, it is as readily controlled as other such dusts and it can be used safely with appropriate precautions.

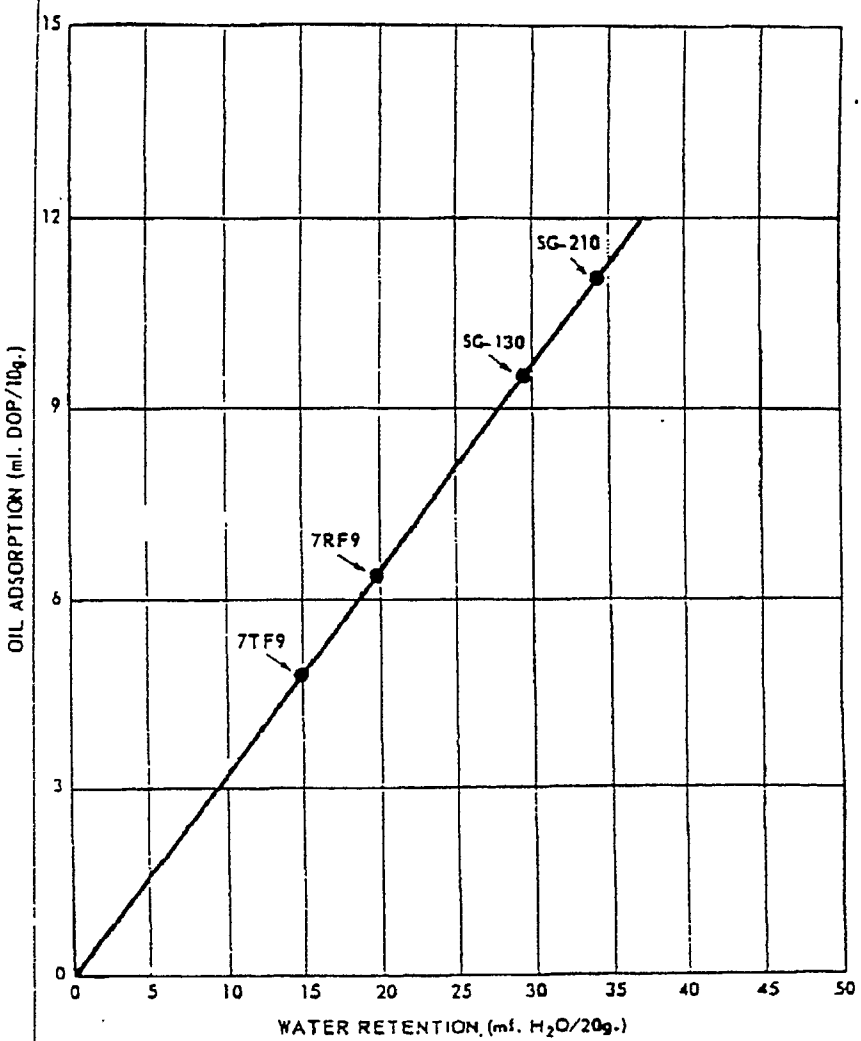


GP 013014

Union Carbide trial exhibit UC-5468: Union Carbide Product Bulletin: "Calidria" Asbestos SG-130 and SG-210 for Ta... Published by AsbestosClaims.Law
ACL Doc 19898 · Page 4 of 6 asbestosclaims.law/library/19898/4

## "CALIDRIA" ASBESTOS SG-130 AND SG-210

For Tape Joint Compounds




RELATIONSHIP BETWEEN WATER & OIL ADSORPTION CAPACITY OF SOME ASBESTOS PRODUCTS FOR TAPE JOINT ADHESIVE FORMULATIONS



GP 013015

THE DISCOVERY COMPANY

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
270 PARK AVENUE, NEW YORK, N.Y. 10017

## Sales Offices

### United States

| | | |
|---|---|---|
| ATLANTA, GEORGIA 30309 | 1371 Peachtree St., N. E. | 404-892-7500 |
| BALTIMORE, MARYLAND 21207 | Beltway Bldg., 6707 Whitestone Rd. | 301-944-8211 |
| BOSTON, MASSACHUSETTS 02194 | 300 First Ave., Needham Hgts. | 617-444-5400 |
| BUFFALO, NEW YORK 14225 | 3343 Harlem Rd. | 716-837-6450 |
| CHARLOTTE, NORTH CAROLINA 28210 | 6230 Fairview Rd. | 704-364-1400 |
| CHICAGO, ILLINOIS 60606 | 120 South Riverside Plaza | 312-822-7000 |
| CINCINNATI, OHIO 45227 | West Street and Madisonville Rd. | 513-272-0206 |
| CLEVELAND, OHIO 44114 | 1300 Lakeside Ave., N.E. | 216-621-4202 |
| CLIFTON, NEW JERSEY 07012 | 935 Allwood Rd. | 201-778-2900 |
| DALLAS, TEXAS 75207 | 2710 Stemmons Freeway | 214-631-0010 |
| DETROIT, MICHIGAN 48221 | 10421 West Seven Mile Rd. | 313-341-3131 |
| HARTFORD, CONNECTICUT 06103 | 410 Asylum St. | 203-525-9345 |
| HOUSTON, TEXAS 77027 | 3839 West Alabama Ave. | 713 621-1000 |
| INDIANAPOLIS, INDIANA 46220 | 720 Broad Ripple Ave. | 317-255-3181 |
| KANSAS CITY, MISSOURI 64141 | 910 Baltimore Ave. | 816-221-2400 |
| LOS ANGELES, CALIFORNIA 90058 | 2770 Leonis Blvd. | 213-583-3061 |
| MEMPHIS, TENNESSEE 38116 | 3385 Airways Blvd. | 901-396-5375 |
| MINNEAPOLIS, MINNESOTA 55416 | 3033 Excelsior Blvd. | 612-927-4221 |
| MOORESTOWN, NEW JERSEY 08057 | Route 38 and Pheasant Valley Rd. | 609-235-6200 |
| NEW YORK, NEW YORK 10017 | 270 Park Ave. | 212-551-4641 |
| PHILADELPHIA (MOORESTOWN, NEW JERSEY SALES OFFICE) | | 215-923-3200 |
| PITTSBURGH, PENNSYLVANIA 15220 | Pkway Center, 875 Greentree Rd. | 412-922-5700 |
| ST. LOUIS, MISSOURI 63105 | 10 South Brentwood Blvd. | 314-726-0324 |
| SAN FRANCISCO, CALIFORNIA 94105 | 22 Battery St. | 415-982-1360 |
| SEATTLE, WASHINGTON 98118 | 4726 Rainier Ave., South | 206-723-8660 |
| TULSA, OKLAHOMA 74114 | 2901 South Harvard | 918-742-5524 |

## Affiliates

### Pan America

| | |
|---|---|
| ARGENTINA | Union Carbide Inter-America, Inc., Buenos Aires |
| BRAZIL | Union Carbide do Brasil S. A., Sao Paulo, Rio de Janeiro |
| CANADA | Union Carbide Canada Ltd., Calgary, Lachine (P.Q.), Toronto, Vancouver, Winnipeg |
| CARIBBEAN | Union Carbide Inter-America, Inc., San Juan, Puerto Rico |
| CENTRAL AMERICA | Union Carbide Inter-America, Inc., Panama City, Panama |
| CHILE | Union Carbide Comercial Chile Ltd., Santiago |
| COLOMBIA | Union Carbide Colombia, S. A., Bogota |
| MEXICO | Unicarb Comercial, S. A. de C. V., Mexico, D. F., Guadalajara, Monterrey |
| PERU | Union Carbide Inter-America, Inc., Lima |
| VENEZUELA | Union Carbide de Venezuela, C. A., Caracas |
| WESTERN HEMISPHERE | Union Carbide Inter-America, Inc., New York, N. Y. |

### Eastern

| | |
|---|---|
| AUSTRALIA | Union Carbide Australia Ltd., Sydney, N. S. W. |
| HONG KONG | Union Carbide Asia Ltd., Hong Kong |
| INDIA | Union Carbide India Ltd., Calcutta, Bombay, Madras, New Delhi |
| NEW ZEALAND | Union Carbide New Zealand (Pty) Ltd., Auckland |
| PAKISTAN | National Carbon Co. (Pakistan) Ltd., Karachi |
| PHILIPPINES | Union Carbide Philippines Inc., Manila |
| SINGAPORE | Union Carbide Singapore Ltd., Singapore |

### Europe
Middle East and North Africa

| | |
|---|---|
| AUSTRIA | Union Carbide Austria Ges. mbH., Vienna |
| BELGIUM | Union Carbide Belgium N. V., Brussels |
| FRANCE | Union Carbide Europe s.a., Succursale Francaise, Puteaux-Paris |
| GERMANY | Union Carbide Deutschland, GmbH, Dusseldorf |
| ITALY | Union Carbide Italia S.p.A., Milan |
| MIDDLE EAST | Union Carbide Middle East Ltd., Athens, Greece |
| NETHERLANDS | Union Carbide Belgium N. V., Amsterdam |
| SCANDINAVIA | Union Carbide Norden A.B., Stockholm, Sweden |
| SPAIN | Union Carbide Iberica S. A., Madrid |
| SWITZERLAND | Union Carbide Europe s.a., Geneva |
| UNITED KINGDOM | Union Carbide U. K. Limited, London, Manchester, Rickmansworth, England |

### Africa

| | |
|---|---|
| AFRICA (EAST) | Union Carbide Africa Ltd., Nairobi, Kenya |
| AFRICA (SOUTH) | Union Carbide South Africa (Pty) Ltd., Johannesburg, Capetown, Durban; Republic of South Africa |

F-42258

Lithographed in U.S.A.
GP 013016


Published by AsbestosClaims.Law
asbestosclaims.law/library/19898/6