

# **AN ANALYSIS OF OUR TALC COMPETITORS**



**Johns-Manville  
DESERTALC**

## **UNITED SIERRA DIVISION OF CYPRUS MINES CORPORATION**

### **I. HISTORY**

USD is considered one of the largest talc producers in the world having mining, manufacturing, and distribution facilities in the United States, Europe, Mexico and other areas. Cyprus Mines Corporation acquired the Sierra Talc Company in 1964 and the Southwestern Talc Company in 1965. As an independent producing company, Sierra Talc was one of the largest domestic suppliers in the industry. Sierra Talc Company was headquartered in South Pasadena, California, and was a leader in the industry in research and technical development. They developed a broad line of products specialized for industry consumption with emphasis on ultra-fine or micronized products. Desert Minerals has been fortunate in acquiring much experience and knowledge in our association with individuals such as Joe Ellsworth, Dick Lamar, and Norman Scheffel who all were former employees of the Sierra Talc Company. This experience coupled with the superiority of our basic crude resources has been a fortunate combination which is now even further amplified with the resources of Johns-Manville Corporation.

### **II. GEOGRAPHY**

USD has its headquarters and research facilities at Trenton, New Jersey, from which all activities are directed in talc as well as other non-metallic mineral products. USD mines and mills talc in California, Montana, and Texas. Domestic manufacturing facilities are located at Los Angeles, Keeler and Olancha, California; Three Forks, Montana; and Grand Island, Nebraska. European business is operated through a subsidiary CMC-Sierra Corporation operating a facility at Ghent, Belgium, based on crude talc shipped from the United States and Australia.

### **III. MINING**

USD has historically purchased the bulk of their California talc from Grantham Mines, securing from them a uniform source of high-brightness, crude ore. USD has not publicized this fact; rather, they have promoted the image that they mine California talc from several active mines in the Death Valley area of California. The two principal USD mines that have been publicized are the Panamint and Ibex deposits which are somewhat similar to Grantham talcs in being tremolitic, but are not quite as high brightness as Grantham. USD has historically built a rather broad range of products on the Grantham talc utilizing the high-brightness and uniformity features. The Montana operations of USD are open pit from either the Yellowstone or Beaver head Mines. Yellowstone talc must be hand sorted to produce a commercial grade free from impurities of a steatite type talc. USD Mistron Vapor is based on Yellowstone talc from Montana. Texas talc, as supplied by the Southwestern Talc Corporation, is also open pit. Texas talc is grey to nearly black in color due to organic impurities which make the ground products relatively undesirable for paints and coatings, but ceramic products fired at high temperatures are suitable because the talcs are white firing.

### **IV. MANUFACTURING**

USD processing plants are strategically located for the resources. Steatite and cosmetic grade talcs are processed at Keeler, California, on the west side of Death Valley. The Los Angeles operation processes primarily paint talcs shipped from Grantham and the Southern Death Valley area. Montana talcs are processed at Three Forks, Montana. A fourth mill located at Grand Island, Nebraska, was located at this point to process talcs from either Montana or California enroute to the Eastern markets. The Grand Island location offers no advantage to processing California talcs other than it being a junction point for processing both California and Montana source materials. Basic processing of crude talc at all USD locations is the same as our processing with the additional facilities of fluid energy milling for the production of the ultra-fine Mistron Vapor and Mistron Frost products.

## **V. MARKETING**

USD products service all the industries with which DESERTALCS and CYCLONIZED products are serviced — ceramics, paint, plastics, paper, rubber, cosmetics, etcetera. USD markets their products partially on a direct basis and partially through distributors. The direct sales organization is industry oriented with specialists traveling nationally out of Trenton and some sales offices in the Northeastern United States. Thompson-Hayward is the distributor in the Central and Southeastern states. Van Waters and Rogers is the distributor in the West and Northwestern states. Table I is a data sheet defining the major USD products by important properties. Due to product and specification changes, all of the known products are not listed. Any old or new product numbers or designations that you encounter competitively that are not listed should be evaluated for current recommendations. In general, the Fibrene products are Raymond Mill grinds utilized by the paint and plastics industries. The Mistrons are ultra-fine or micronized products requiring additional processing after the Raymond Mill production. Our DESERTALC MIKRO and CYCLONIZED product series are comparable to the Mistron series. Other specialty grades are often designated by the crude source or special names definitive for the industrial consumption. Your DESERTALC Competition Data Sheet provides our recommendations for general usage.

## **PFIZER, INC.**

### **I. HISTORY**

The talc operations are assigned to the MPM (Minerals, Pigments and Metals Division) and consist of the consolidated operations from several acquisitions. The basic position in talc was initiated by the acquisition of C. K. Williams & Company in 1963. Prior to that, C. K. Williams had acquired the Kennedy Minerals Company of Los Angeles. Kennedy Minerals had operated a mineral processing plant in Los Angeles for several years and was involved with Louise Grantham as described in the DESERTALC Business section of this Handbook by mining at Warm Springs under contract starting in 1943. Kennedy Minerals marketed talcs under the name of Kentalc, Fibre M, and Warm Springs Talc. Kennedy Minerals operation in Los Angeles consisted essentially of Raymond Mill production from which he supplied his products at 200 mesh to the ceramic industry and at 325 mesh to the paint industry. The acquisition by C. K. Williams and subsequently by Pfizer of course did not include the Grantham Mine at Warm Springs Canyon, but it did include two other smaller operating mines in Death Valley called the Eclipse and the Death Valley Mines. Pfizer operated these mines on a small scale and initiated the conversion of the Kennedy Minerals' names to a number system with the coined names Talcron. Then in 1966, Pfizer made an additional acquisition which implanted the MPM Division more firmly into the talc business. This acquisition was that of Southern California Minerals Company with a mill in Los Angeles and a mill at Dunn, California. It is this Dunn Mill that was placed into operation in 1963 by SCMC that is now owned by Johns-Manville for expansion of the Desert Minerals product line. This acquisition also included the purchase of the Tri-State Minerals Company and the Fine Pigments Corporation with plants and mines at Barretts and Dillon, Montana. These Montana operations constituted a joint venture between Southern California Minerals Company and Whittaker, Clark & Daniels. SCMC operated the mines and production facilities and WCD exclusively marketed the finished products east of the Rocky Mountain states. It was through WCD's efforts that WCD 399 SF (Super Fine) became established in the Eastern paint industry as the preferred micronized talc. Many other grades of Montana and California talcs were marketed by WCD under a complex numbering system. WCD has continued to market selected products under a contract with Pfizer since the acquisition — notably WCD 399 SF. Pfizer, thus, supplemented their initial acquisition with additional California mines in the Death Valley area under such names as Apex, Acme, Monarch and Superior. In Montana, the Treasure and Regal Mines continue to supply. Pfizer has amplified the product line accordingly with additional trademarks Cercron (ceramic talcs) and Microtalc (micronized) along with a complex numbering system. Pfizer's activities in the non-metallic mineral business are supplemented with Eastern and Western sources of calcium carbonates, barytes, and others.

**TABLE I**  
**TYPICAL GRADES & PROPERTIES OF TALCS**  
**PRODUCED & MARKETING BY UNITED STATES**  
**DIVISION OF CYPRESS MINES CORPORATION**

| Grade             | Particular Type | Acid Solubles<br>% as CaO | Screen Fineness<br>% Thru | Hegman Fineness | Oil Absorption<br>Spatula<br>lbs/100 lbs. | Apparent Density<br>Loose<br>lbs/Ft <sup>3</sup> | Color<br>Photovolt<br>Green<br>Filter |
|-------------------|-----------------|---------------------------|---------------------------|-----------------|-------------------------------------------|--------------------------------------------------|---------------------------------------|
| Panamint 96       | Platy-Acicular  |                           |                           |                 |                                           |                                                  |                                       |
| Fibrene C-300     | Acicular-Platy  | 3.6                       | 98-98.5/325               | 2-2.5           | 27-28                                     | 23-24                                            | 93                                    |
| Fibrene C-400     | Acicular-Platy  | 3.6                       | 99.2-99.6/325             | 2-3             | 27-29                                     | 22-23                                            | 93                                    |
| Fibrene C-500     | Acicular-Platy  | 3.6                       | 99.6-99.9/325             | 3-4             | 28-30                                     | 19-21                                            | 93                                    |
| Trinity Super     | Platy           | 2.0                       | 95-97/325                 | 1-2*            | 24-26*                                    | 25-26                                            | 90*                                   |
| Trinity Superfine | Platy           | 2.0                       | 99.2-99.6/325             | 2-3*            | 26-39*                                    | 23-24                                            | 90*                                   |
| Supreme 200       | Platy           | 0.5-1.5                   | 95-97/325                 | 0-1*            | 25-28*                                    | 26-27                                            | 90*                                   |
| Supreme 325       | Platy           | 0.5-1.5                   | 99.2-99.6/325             | 2.3*            | 27-29*                                    | 21-22                                            | 90*                                   |
| Supreme USP       | Platy           | 0.5                       | 99.2-99.6/325             | 2.3*            | 27-29*                                    | 21-22                                            | 90*                                   |
| Mistron 139       | Acicular-Platy  | 3.6                       | 100/325                   | 4-5             | 35-37                                     | 14-16*                                           | 94                                    |
| Mistron 128       | Acicular-Platy  | 3.6                       | 100/325                   | 4.5-5.5         | 38-40                                     | 12-14*                                           | 95                                    |
| Mistron T-076     | Acicular-Platy  | 3.6                       | 100/325                   | 5-6             | 42-44                                     | 10-12*                                           | 96                                    |
| Mistron HGO-75    | Platy           | 0.5-1.5                   | 100/325                   | 5-5.5           | 50-52                                     | 12-14*                                           | 92                                    |
| Mistron HGO-55    | Platy           | 0.5-1.5                   | 100/325                   | 5.5-6           | 55-60                                     | 10-12*                                           | 92                                    |
| Mistron Frost     | Acicular-Platy  | 3.6                       | 100/325                   | 5.5-6           | 48-50                                     | 8-10*                                            | 97                                    |
| Mistron Vapor     | Platy           | 0.5-1.0                   | 100/325                   | 5.5-6.5         | 55-60                                     | 6-8*                                             | 89                                    |
| Mistron Monomix   | Platy           | 0.5-1.5                   | 100/325                   | 6-7             | 55-60                                     | 6-8*                                             | 89                                    |

Above properties taken from the latest USD published specifications except where asterisks shown results are from our own laboratory tests.