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cc: JWR
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M E M O R A N D U M

Subject: Relationship of RG-244 to FMC German Patent 1,567,517 and U. S. Patent 3,458,393.

RG--244

It is understood that the following is the current procedure for producing RG-244:

1. High purity asbestos is heated at about 100°F. and subjected to grinding and cyclone separation.

2. The separated asbestos material is introduced into a tank (with no additional heating) and sodium silicate at ambient temperature is also added. The pH at this point goes to about 10.5.

3. Acetic acid is next added (without heating) to reduce the pH to about 7.5 to 8, whereby silica is precipitated onto the asbestos material to provide a material having a siliceous outer layer.

4. The wet material is pressed, dried and then dry ground to provide a material having about the same fineness as the starting asbestos material.

FMC German Patent 1,567,517

The claims (copy attached) of German patent 1,567,517 describe a process wherein chrysotile asbestos is heated with an acid whereby the SiO_2/MgO ratio of the asbestos is changed from

PLAINTIFF'S EXHIBIT

UC-4590

1:1 to from 1.05:1 to 1.3:1.

Conclusion re FMC German Patent 1,567,517

In view of the fact that the production of RG-244 does not involve heating asbestos with an acid, German Patent 1,567,517 is not infringed.

FMC U. S. Patent 3,458,393

This patent claims an article of manufacture and a process for making the article of manufacture. The article of manufacture claim recites a "chemically modified chrysotile at least 5% by weight having a particle size not exceeding one micron and being characterized in having a SiO_2/MgO weight ratio of from about 5% to about 30% greater than the corresponding ratio of the parent chrysotile."

The process claim of U. S. P. 3,458,393 recites a "method of treating chrysotile which comprises subjecting it to the action of an acidic solution for a time and at a temperature sufficient to increase the SiO_2 to MgO weight ratio from about 5% to about 30% and mechanically attriting the treated chrysotile until at least 5% by weight has been reduced to a particle size not exceeding about one micron."

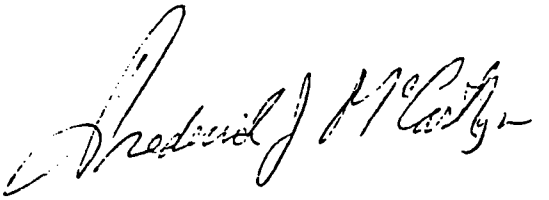
Conclusion re FMC U. S. Patent 3,458,393

There is no infringement of the process claim of U.S.P. 3,458,393 since chrysotile is not subjected to an acidic solution

Union Carbide trial exhibit UC-4590: Memorandum on Relationship of RG-244 to FMC German Patent 1,567,517 an... Published by AsbestosClaims.Law
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during the making of RG-244. The lowest pH achieved during processing is 7.5.

If the expression "chemically modified" is given its broadest meaning then RG-244 literally infringes the article claim of U.S.P. 3,458,393. However, RG-244 is asbestos having a precipitation deposited siliceous outer layer. On the other hand U.S.P. 3,458,393 specifically describes and claims a chemically modified asbestos wherein the modification involved is an acid-asbestos reaction whereby MgO is removed from asbestos. In other words, RG-244 is asbestos to which silica has been added whereas the material of U.S.P. 3,458,393 is asbestos from which MgO has been removed. Consequently, there is no identity of product between RG-244 and the material of U.S.P. 3,458,393 and hence no infringement.



DOS 1, 567,517

Claims:

1. Method for producing a microcrystalline, colloidal material from chrysotile having an SiO_2/MgO ratio of 1:1, characterized in that the chrysotile is heated with an acid for such a time and at such a temperature that the SiO_2/MgO ratio is changed to from 1.05:1 to 1.30:1, whereupon the acid-treated and chemically modified chyrsotile is mechanically comminuted until at least 10 per cent by weight of the particles have a particle size of less than 1 my.

2. Method according to Claim 1, characterized in that the resulting microcrystalline, colloidal material is converted to a stable gel by the addition of a hydrophilic liquid.

3. Method according to Claim 2, characterized in that the stable gel is formed into a film and dried.

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