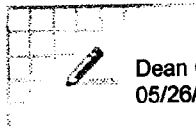


450-2027



Dean Graham  
05/26/99 01:42 PM

To: Tom F. Baltutis/US-Corporate/3M/US@3M-Corporate  
cc: Pam J. Gotz/US-Corporate/3M/US@3M-Corporate  
Subject: F-6002 waste water

Here is the information you requested per our phone conversation earlier today regarding the F-6002 material.

**Composition:**

The material is approximately 85 to 95 percent water with the other 5 to 15 percent fluorochemical acids or salts.

The fluorochemical portion of this material is fully fluorinated C8, C7, C6, C5, C4, C3 acids/salts. These are not Sulfonated, and are very similar to FC-143 (F-8514) or FC-118 (F-8178). Based on lab data collected from 10 samples the C8 content of the F-6002 material ranges from about 0.0015 pounds of C8 per pound of F-6002 up to 0.028 pounds of C8 per pound of F-6002 (an average of the ten samples yields 0.01 pounds per pound of F-6002). Total lower boiling compounds (C7+C6+C5+C4+C3) range from .01 pounds per pound of F-6002 up to 0.12 pounds per pound of F-6002.

**Source:**

The F-6002 material is produced as a by-product of the C8 acid fractionation in BC-34 in Building 15. The acid fluoride is stabilized using sodium hydroxide and water. The stabilized acid is then phase spitted from the water phase. A small portion of this water phase remains in the stabilized acid and is stripped out as a by-product of the acid fractionation.

**Disposal options:**

1. Send F-6002 to the sewer.
2. Ship the F-6002 material to Decatur were it could be recycled into the stabilization process. The current plan is to run the C8 cell run/stabilization in Decatur on a regular basis (This was done at Cottage Grove prior to moving the cell run and stabilization to Antwerp/Decatur.
3. Re-process the material here at Cottage Grove. Due to the low concentration of the C8 portion of the material it may be more cost effective to ship the material to Decatur.
4. Send the F-6002 to the incinerator. This could be very expensive.

This material is piling up fast. If you think it would be best to re-process the material please let me know as soon as possible so I can get some cost information regarding re-processing at Cottage Grove Vs Decatur.

Thanks,

**Exhibit  
1589**

State of Minnesota v. 3M Co.,  
Court File No. 27-CV-10-28862

3M\_MN02465688