Perfluro Compounds – Comments of Environmental Defense

(Submitted via Internet 6/28/02)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Perfluro Compounds, C 5-C18 (CAS # 86508-42-1).

This Robust Summary/Test Plan submitted by the 3M Company is somewhat unusual in that it covers a number of chemicals designated by a single Chemical Abstracts Service Number (CAS #). Some individual chemicals in the group have specific CAS #s, but EPA has suggested the use of a generic CAS # for the group as used in this report. The chemicals covered by this CAS # are also unusual in that they appear to be among the least toxic chemicals known. All available data indicate they are without appreciable toxicity of any type to any organism tested. Further, if released into the environment they are non-reactive and volatile, thus they rapidly partition to the atmosphere and do not otherwise accumulate in the environment.

Unfortunately, these chemicals have extremely long half-lives in the atmosphere. Persistence in the atmosphere and possible contribution to global warming is the primary concern regarding their use. Thus, the producers of these compounds have adopted product-stewardship policies under which perfluro compounds should be used only in niche applications where there is no other alternative on the basis of performance or safety. In an effort to reduce their release into the atmosphere, 3M has installed abatement technology that it anticipates will, in the next 3 years, reduce emissions by approximately 90% compared to the 1995 baseline.

The Test Plan for these perfluro compounds is relatively complete and well described in the Robust Summary. The only SIDS elements not addressed are studies of toxicity to algae and reproductive and developmental toxicity. Although we concur that the water-solubility issue may obviate the need to conduct the algae-toxicity study, we are concerned about the lack of information on both reproductive and developmental effects, since effects on developing organisms may occur in ways not forecast by effects in mature organisms. As a result, we believe that reproductive and developmental studies should be conducted for some members of the perfluro category.

Thank you for this opportunity to comment.

Hazel B. Matthews, Ph.D.
Consulting Toxicologist, Environmental Defense

Karen Florini
Senior Attorney, Environmental Defense