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October 28, 2003

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Room 6428 East / Phone 202-564-8940  
Attn: TSCA Section 8(e) Coordinator  
Office of Pollution Prevention and Toxics  
US Environmental Protection Agency  
1201 Constitution Avenue NW  
Washington DC 20460-0001



RE: TSCA 8(E) SUBSTANTIAL RISK NOTICE ON: 1-Butanesulfonamide,  
1,1,2,2,3,3,4,4,4-nonafluoro-n-methyl ('N-MePFBA') [CAS 68298-12-4]

Dear Sir/Madam:

3M has received preliminary data for a combined repeated dose toxicity study with a reproduction/developmental toxicity screening test in rats conducted with a chemical intermediate, 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-n-methyl [CAS 68298-12-4] (N-MePFBA) indicating reproductive and possible neurotoxic effects.

The study was conducted by Notox Safety and Environmental Research. Male rats were orally administered N-MePFBA at doses of 0, 50, 150 or 1000 mg/kg/day beginning fourteen days before cohabitation and continuing until after cohabitation, for a minimum of 28 days of dosage. Female rats were orally administered the substance at the same dosage levels beginning fourteen days before cohabitation and continuing until day 5 of lactation.

In the 1000 mg/kg/day dosage group, several significant reproductive effects were observed. Of the nine mated females, only four pregnancies occurred and only three litters were produced. Consequently, there was a decreased fertility index, conception rate, and gestation index in this group. Treatment-related post natal-loss was reported. Mean body weights in the pups were decreased on days 1 and 4 during lactation. Macroscopic examination of the pups revealed small appearance, no milk, and cannibalism.

Additionally, male and female rats in the 1000 mg/kg/day dosage group were observed to display adverse clinical signs including lethargy, hunched posture, uncoordinated movements, decreased locomotor activity, quick breathing, labored respiration, rales, shallow respiration, and salivation, which may indicate neurotoxic effects.

N-MePFBA is used as a chemical intermediate. 3M believes that human and environmental exposure to this material is very low.

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N-MePFBA is present in final products as an impurity at a level restricted to less than 0.1 percent according to manufacturing specifications. Workplace exposure within 3M is carefully controlled through our EHS management systems.

A copy of the final report will be forwarded to EPA when received.

Please contact Paul Lieder (651-737-2678) if you have any questions or if we can provide additional information.

Once a docket number has been assigned for this submittal, please send the docket number postal card to Cheri Kedrowski, 3M Center Bldg. 220-2E-02, St. Paul, MN 55144.

Sincerely,

A handwritten signature in black ink that reads "Katherine E. Reed". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Katherine E. Reed  
Staff Vice President, Environmental Technology and Safety Services