

Summary N-EtFOSE Rabbit Teratology

Study Numbers: 3M T-6316.8, Argus 418-010

Compound & Lot: N-EtFOSE (N-Ethyl-Perfluorooctanesulfonamido Ethanol) – Lot FM3923 (30035, 30037, 30039) 98.2% pure (SMD Analytical Request 52489) Analytical Documentation filed along with final report. Note – same lot as used in two-year rat carcinogenicity study (T-6316, Covance 6329-212).

Study Title: Oral (Stomach Tube) Developmental Toxicity Study of N-EtFOSE in Rabbits

Report Date: 11 January 1999

Study Monitor Summary: (written by Marvin T. Case) Pregnant rabbit females, 22 per group, were given daily oral (intubation) of N-EtFOSE at dose levels of 0, 0.1, 1.0, 2.5, and 3.75 mg/kg/day on days 7 through 20 of gestation. The rabbit fetuses which had been exposed in utero during organogenesis were collected at day 29 of gestation. All of the fetuses were examined for soft tissue (visceral) changes using a dissection microscope and then all fetus were examined for skeletal changes.

A dose related body weight effect occurred in the 1.0, 2.5, and 3.75 mg/kg dose groups. The difference in mean body weights was statistically significant at the 2.5 and 3.75 mg/kg doses. A significant reduction in food consumption was also present at the 2.5 and 3.75 mg/kg doses. No compound related deaths occurred at any dose level.

Abortions occurred in one control doe, in two 2.5 mg/kg does, and in five 3.75 mg/kg does. The abortions at the highest two doses were considered to be compound related. The mean number of late resorptions was also increased in the 2.5 and 3.75 mg/kg females. The reduced food consumption and adverse body weight effect that occurred at these two highest dose level were indicative of dam toxicity. The increased number of abortions and late resorptions were probably secondary to the dam toxicity.

No compound-related soft tissue or skeletal malformations were found at any dose level. Thus, the compound was not found to be teratogenic in the rabbit.

The maternal toxic NOEL was 0.1 mg/kg.

The fetal toxic NOEL was 1.0 mg/kg.

Teratogenic NOEL in the rabbit was > 3.75 mg/kg.

NOTE: Dose preparation samples were collected twice during the study and these samples were sent to 3M Environmental Analytical laboratory in Bldg 2. Likewise, samples were collected from extra females assigned as toxicokinetic satellite animals (3/group except low and high dose 5/group). These animals were killed on gestation day 21 (day after last dose) and the following samples were collected: serum and liver from pregnant dams, fetuses and placentas (pooled by litter) from uterus. These samples were frozen and sent to 3M Environmental Analytical laboratory in Bldg 2. At time of this summary, March 1999, analysis of these samples had not been done; therefore, these analytical results were not included in the final report nor in this summary.