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December 8, 2006

TSCA Confidential Business Information Center (7407M)
EPA East - Room 6428 Attn: FYI
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

CONTAIN NO CBI

Re.: Trifluoriodomethane (CAS # 2314-97-8)

Dear FYI Coordinator:

Honeywell recently received a draft of a report on a 4-week inhalation toxicity study with trifluoromethyl iodide. The study involved exposures 6 hours per day, 5 days per week at levels of 10,000, 20,000 and 40,000 ppm (80, 160, and 320 mg/L). The study was conducted to determine the validity of existing studies conducted by Dodd et al. (1997)¹ in which rats were exposed to levels of 30,000 to 120,000 ppm for the 2 week 20,000 to 80,000 ppm for the 13 week study. Exposures were 2-hours/day, 5 days/week for both. In addition, since these earlier studies had shown CF₃I to be active in the mouse micronucleus assay, we conducted a chromosome aberration assay and an Unscheduled DNA Synthesis assay on the rats in our study. An additional reason for conducting the current study was that OECD protocols for repeat exposure inhalation studies generally use a 6 hour exposure, while the older studies used only a two hour exposure.

Overall our study confirmed the earlier published findings of effects on the White Blood Cell counts and thyroid function (increases in serum thyroglobulin and reverse triiodothyronine levels) and decreases in body weight gain. As a consequence of the design of the Honeywell study with the evaluation of the genetic endpoints, we also looked at cytotoxicity in the bone marrow. Evidence of cytotoxicity was reported at all three exposure levels. This observation, while a component of the genotoxic evaluation and probably present in the earlier studies, was not reported in the published findings.

Honeywell considers this observation incidental to the observations of decreased WBCs and notes that it was observed in a 20 exposure study at an exposure level that was 16 times the maximum recommended level for an acute study.

Sincerely,
Honeywell Specialty Materials

Sheri L. Blystone
Global Product Regulatory Leader



cc. Dr. George M. Rusch

¹ Dodd, DE, Kinkead, ER, Wolfe, RE, Leahy, HF, English, JH and Vinegar, A. Acute and subchronic inhalation studies on trifluoriodomethane vapor in Fischer 344 rats. Fundam. Appl. Toxicol. 35: 64-77 (1997).