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July 25, 2006

Via Courier

Document Control Office (DCO) (7407M)
ATTN: TSCA 8(e) Notice
Office of Pollution Prevention and Toxics (OPPT)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001



Re: 3-Aminopentanenitrile (CAS # 75405-06-0)

Dear 8(e) Coordinator:

This letter is to inform you of the results of a 28-day repeated dose oral toxicity study in the rat with the above referenced test material.

The study was designed to investigate the systemic toxicity of the test material. The test material was administered by gavage to three groups each of five male and five female Sprague-Dawley CrI:CD® (SD) IGS BR strain rats, for 28 consecutive days, at dose levels of 15, 150 and 300 mg/kg/day. A control group of five males and five females was dosed with vehicle (distilled water) alone.

Clinical signs, functional observations, body weight development, and food and water consumption were monitored during the study. Hematology and blood chemistry were evaluated for all animals at the end of the study.

There were no unscheduled deaths in the study, nor were there any treatment-related changes in behavioral parameters, functional performance parameters, sensory reactivity, water consumption, or hematology. A reduction in body weight gain was noted in animals of both sexes treated with 300 or 150 mg/kg/day during the first week of treatment. Body weight gain recovered thereafter, with females treated with 300 or 150 mg/kg/day showing an increase in body weight gain during the second week of treatment. A statistically significant reduction in body weight gain was also evident for males treated with 300 mg/kg/day during the final week of treatment.

An increase in absolute adrenal weight was noted for males treated with 300 mg/kg/day. An increase in relative liver weight was noted for animals of both sexes treated with 300 or 150 mg/kg/day.

A reduction in plasma glucose levels and an increase in plasma creatinine were observed in both sexes at 300 mg/kg/day in comparison with controls. In addition, males at this dose level showed reductions in total protein and females showed lowered cholesterol levels. Males treated with 300 mg/kg/day also showed lower albumin levels and females at this dose showed an increase in aspartate aminotransferase.



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The following treatment-related microscopic changes were detected:

Liver. Centrilobular changes – characterized by single cell hepatocyte necrosis, accumulations of Perl's positive pigment (probably hemosiderin), and mononuclear infiltrates – were observed in rats of both sexes dosed at 300 mg/kg/day or at 150 mg/kg/day. In addition, in female rats only, lipid vacuolation of hepatocytes was observed as a consequence at all dose levels. Isolated instances of hepatocyte enlargement were seen for male rats dosed at 300 mg/kg/day.

Thyroid Gland. Hypertrophy of follicle lining cells was seen in rats of both sexes dosed at 300 mg/kg/day, and for male rats only at 150 mg/kg/day.

The effects observed at 15 mg/kg/day were minimal in nature, with no significant supporting histopathological correlates. On this basis, the No Observed Adverse Effect Level (NOAEL) was therefore considered to be 15 mg/kg/day.

Under these experimental conditions, the blood chemistry and liver and thyroid gland histopathology described above appear to be reportable, based upon guidance given in the EPA TSCA Section 8(e) Reporting Guide. Upon its completion and acceptance, INVISTA will forward a copy of the Final Report (Dytek® 3APN – Twenty-Eight Day Repeated Dose Oral (Gavage) Toxicity Study in the Rat) to your office.

If you have any questions or need additional information, please contact me at (316) 828-1342.

Sincerely,

A handwritten signature in black ink, appearing to read "James D. Jernigan".

James D. Jernigan, Ph.D.
Product Safety Manager