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MR 296383

June 12, 2006

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United States Environmental Protection Agency - East  
Attn: TSCA Section 8(e)  
Room 6428  
1201 Constitution Avenue, NW  
Washington, DC 20004



**Subject:** Notice in Accordance with Section 8(e): Results of Two Prenatal Developmental Toxicity Studies in Himalayan Rabbits with N-Ethyl-2-pyrrolidone (NEP) (CAS No. 2687-91-4)

Dear Sir/Madam:

BASF Corporation is submitting results of two prenatal developmental toxicity studies in Himalayan rabbits (strain CrI:CHBB(HM)) with N-Ethyl-2-pyrrolidone (NEP) (CAS No. 2687-91-4) conducted by BASF Aktiengesellschaft, Ludwigshafen, Germany. The substance is an organic solvent.

**Scope of examinations:**

The two studies were carried out subsequently following the requirements of international guidelines such as:

- Corrigendum to EC Commission Directive 2004/73/EC of April 29, 2004; Part B: Methods for the determination of toxicity: Prenatal Developmental Toxicity Study; Official Journal of the European Union; No. L 216, pp. 227-235 (2004)
- OECD Guidelines for Testing of Chemicals, Proposal for Updating Guideline 414, Prenatal Developmental Toxicity (January 2001)
- EPA, Health Effects Test Guidelines; OPPTS 870.3700: Prenatal Developmental Toxicity Study (August 1998)

The test substance was administered by gavage to 25 artificially inseminated female rabbits/group at doses of 0, 20, 60 and 200 mg/kg body weight (study No. 04058) and of 0 and 220 mg/kg body weight (study No. 04075) on day 6 through day 28 post insemination. At scheduled necropsy, 22 - 25 females/group had implantation sites. The fetuses were assessed for external, soft tissue and/or skeletal (incl. cartilage) findings without knowledge of treatment group.

**The following is a summary of the most relevant results:**

Marked signs of general systemic toxicity were noted in the 2 high dose groups (200 and 220 mg/kg bw/day). Food consumption (14 - 19% below control) and body weight gain (27 - 38% below

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control) were severely reduced during the administration period. The gravid uterus weight was 19% (200 mg/kg body weight/day) or 13% (220 mg/kg body weight/day) below, absolute and relative liver weights were 13% (absolute weight at 200 and 220 mg/kg body weight/day) or 16% (200 and 220 mg/kg body weight/day) above control values. Moreover, the urine of all of these rabbits showed a substance-specific discoloration.

Gestational parameters were not influenced by the test material based on a combined assessment of both studies.

The test compound did not influence placental and fetal weights in the first study (04058), but were statistically significantly lower at 220 mg/kg bw/day in the second study (04075).

The test substance administration increased the rate of malformed fetuses in the 200 and 220 mg/kg group. At the high dose in the first study, predominantly the number of skeletal malformations was statistically significantly increased, whereas at 220 mg/kg bw/day in the second study increased rates of soft tissue and skeletal malformations were recorded. In the second study there was also an increase in the rate of skeletal variations which have to be seen in conjunction with the reduced fetal body weights.

BASF Corporation understands that reporting of the results from the studies under TSCA 8(e) is in accordance with EPA's policy.

If you have any questions, please call Janet Cerra at (973) 245-6693.

Sincerely,

*Janet Cerra*

Janet Cerra  
Product Regulatory Center of Excellence

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