BASF Corporation

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Attention: (8e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

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Ladies and Gentlemen:

Subject: Notice in Accordance to TSCA Section 8(e) - Preliminary results of aquatic toxicity studies with Lutensol AO 7 Maleinimide ((CAS No. 170678-68-9).

BASF Corporation is submitting the preliminary results of aquatic toxicity studies in Zebra fish (*Brachydanio rerio*) and Daphnia magna with Lutensol AO 7 Maleinimide (CAS No. 170678-68-9), conducted by BASF Aktiengesellschaft, Ludwigshafen, Germany.

The additive is present at 2-3 weight % in granulates. The pure substance is not sold or transported.

Summary of Zebra fish results

The determination of the acute toxicity on the zebra fish was performed following in general the OECD 203 Guideline (adopted April 4, 1984, considering the updated version, adopted July 1992), using a static system. This guideline also covers the requirements of the EEC Directive 84/449, C.1: "Acute toxicity for fish" including the updated version of Nov. 1989 (Doc, 89/86/IX). Deviating from the above guidelines the test concentrations were spaced by a factor of 10 and no analytical monitoring was conducted.

Ten fish per concentration or control were used; the study duration was about 96 hours (= 4 days). The test temperature was 22 - 23°C; the water hardness was about 2.5 mol/l. The test compound was soluble in the test water in the range of the selected concentrations. No analytical concentration control analyses were performed.

The exposure to nominal Lutensol AO 7 Maleinimide concentrations of 0; 0.01; 0.10; 1.00; 10.0 and 100 mg/l resulted in:

LC_{50} (96 hours) = >0.1 and < 1.0 mg/l
NOEC (96 hours) = 0.10 mg/l
LC_0 (96 hours) = 0.10 mg/l
LC_{100} (96 hours) = 1.00 mg/l

These values indicate that Lutensol AO 7 Maleinimide exerts relatively high acute toxicity for fish according to current criteria for TSCA 8(e) submission.

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Summary of Daphnia magna results

The influence of Lutensol AO 7 Maleinimide on the swimming ability (mobility) of Daphnia magna was investigated in a 48-hour static test following in general the EEC guideline 79/831/EEC, annex V, C.2. Acute toxicity for Daphnia (update Nov. 89).

The testing conditions are defined as follows: temperature 20 ± 2°C; pH 7.5 to 8.5, total hardness 2.2 to 3.3 mmol/l and alkalinity (up to pH 4.3) 0.8 to 1.0 mmol/l. Deviations from the above cited guideline: spacing factor of ten, no analytical concentration control.

The nominal concentration of the stock solution was 100 mg/l. The test substance was soluble in the range of the tested concentrations. The stock solution was slightly cloudy. The tested range of concentrations (nominal) was 0.01 mg/l to 100 mg/l. The daphnids were visually counted. For the statistical evaluation of the EC_{50} the moving average method was used.

Effect on the swimming ability:

EC_0 (48 hours) = 0.1 mg/l
EC_{50} (48 hours) = 0.28 mg/l
EC_{100} (48 hours) = 1 mg/l

These values indicate that Lutensol AO 7 Maleinimide exerts relatively high acute toxicity versus daphnids.

Although the findings are not considered to present a substantial risk to the health or the environment, BASF Corporation understands that the reporting of these results is in accordance with EPA's policy. Any reports or additional information that we receive will be forwarded to the Agency and Material Safety Data Sheets will be updated with this preliminary information.

If you have any questions, please feel free to call me at (734) 324-6207.

Very Truly Yours,

BASF Corporation

Edward J. Kerfoot

Edward J. Kerfoot, Ph.D.
Director, Toxicology and Product Regulations