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Via Federal Express

Document Processing Center (Mail Code 7407M)  
Room 6428  
Attention: 8(e) Coordinator  
Office of Pollution Prevention and Toxics  
U.S. Environmental Protection Agency, ICC Building  
1201 Constitution Ave., NW  
Washington, DC 20004

10 JUN -9 AM 11:25  
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Dear 8(e) Coordinator:

Mixture containing Hydroxylamine 50% (CAS#7803-49-8) [ ]; Diglycolamine (CAS#929-06-6) [ ]; Gallic acid (CAS#149-91-7) [ ]; Water (CAS#7732-18-5) [ ] and Pyrogallol (CAS#87-66-1) [ ]

This letter is to inform you of the results of an acute dermal and acute oral toxicity study with the above referenced test mixture.

Acute Dermal Toxicity:

The test mixture was applied undiluted to the shaved backs of five male and five female adult New Zealand White rabbits at a dose of 2 g/kg of body weight. The test sites were wrapped and the test substance was left in contact with the skin for 24 hours. Residual test substance was removed from the application sites by rinsing with saline and wiping with a towel. All rabbits were observed during the 24 hours following treatment and for 14 days thereafter. Doses of 1.6 and 1.2 g/kg were similarly applied due to mortality in the 2 g/kg dose group.

All ten rabbits in the 2 g/kg group died during the 14-day observation period. Four animals each in the 1.6 and 1.2 g/kg groups also died. One death at the 1.2 g/kg group on Day 13 was not considered test substance related. The acute median lethal dose (LD<sub>50</sub>) in male and female rabbits was calculated to be 1.44 g/kg with 95% Confidence Limits of 1.08 to 1.93 g/kg of body weight. All animals exhibited cyanosis. Hydroxylamine has been reported to cause cyanosis<sup>1</sup>. Ataxia and prostrate posture were observed in animals dosed at 2 g/kg. Hypoactivity and coma were observed in animals dosed at 2 or 1.6 g/kg. Necrosis was observed on the application site of animals in all groups and persisted in most surviving animals through study termination (Day 14). This latter finding is not unexpected since the test mixture has a pH of 11.32.

Acute Oral Toxicity:

The test mixture was administered in aqueous formulation by oral gavage to three groups of five fasted male and five fasted female Sprague-Dawley rats at doses of 600, 1100, and 2000 mg/kg of body weight. Rats were observed for 14 days after test substance administration.

Mortality incidences in the 600, 1100, and 2000 mg/kg dose groups were 1/10, 7/10, and 10/10, respectively. Under the conditions of this study, the oral LD<sub>50</sub> of the test mixture in male and female rats is 945 mg/kg with confidence limits of 570 to 1568 mg/kg. Cyanosis<sup>1</sup> was observed in rats at all doses up to day after dosing. Prostration was observed in 2 rats at 600 mg/kg on the day of dosing. Convulsions were observed in rats dosed at 1100 (on the day of dosing in 2 surviving rats) and 2000 mg/kg. Rats dosed at 2000 mg/kg exhibited salivation. Hypoactivity was observed in rats dosed at 1100 mg/kg (on the day of dosing in 2 surviving rats).

Sincerely,

<sup>1</sup> R.E. Gosselin et al., *Clinical Toxicology of Commercial Products*, Williams & Wilkins, 5th Edition, 1984

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