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ORIGINAL

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Document Processing Center
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Contains No CBI

ATTN: 8(e) Coordinator

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Dear Sir/Madam:

Re: TSCA 8(e) "Substantial Risk Notification"
Copper, N-hydroxypyridine-(1H)-thione, (CAS# 14915-37-8)
Acute Inhalation LC₅₀ Results.

Olin Corporation submits the following information under TSCA 8(e).

Five groups of 5-male and 5-female albino rats were exposed for four hours to aerosol concentrations of 0.8, 0.4, 0.11, 0.04, and 0.01 mg/l of copper, N-hydroxypyridine-(1H)-thione (powder >98% a.i.) in air, using nose-only exposure methods. The mean mass median aerodynamic diameter for all five groups was 1.8 μ m.

The following table summarizes the mortality data:

Concentration (mg/l)	Number of deaths/Number exposed	
	Male	Female
0.8	5/5	5/5
0.4	5/5	5/5
0.11	5/5	4/5
0.04	1/5	0/5
0.01	1/5	0/5

Results: Acute Inhalation LC₅₀: 0.07 mg/L 4 hour exposure (95% Confidence Limits 0.05 to 0.09 mg/L)

Observations: Main pharmacotoxic signs noted during the observation period for all groups included labored breathing, decreased activity, rapid respiration, increased salivation, and excessive lacrimation.



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Necropsy: Major finding was discolored lungs in 10/10 animals exposed to 0.4 mg/L and 1/10 animals exposed to 0.04 mg/L copper, N-hydroxypyridine-(1H)-thione aerosol. Discolored lungs were not observed in animals exposed to 0.01 mg/L.

These results were obtained from a draft non-audited report and were considered reportable under TSCA 8(e) due to the acute 4-hour inhalation LC₅₀ for copper, N-hydroxypyridine-(1H)-thione being reported to be 0.07 mg/L. Based on the following acute toxicity for the compound: oral LD₅₀ females >500 but <1,000 mg/kg; males 1,075 mg/kg (rats), dermal LD₅₀ >2,000 mg/kg (rabbits), mild skin irritant, and corrosive to the eyes, the value of 0.07 mg/L for the acute inhalation LC₅₀ was an unexpected result.

This compound is currently being handled under conditions that utilize closed systems and/or minimize dust generation. Employees and customers using this material will be notified of these results and the Olin MSDS for copper, N-hydroxypyridine-(1H)-thione will be updated.

If you have any questions or require more information, please call me at (203) 495-8550, ext. 5779.

Very truly yours,



Nicholas P. Skoulis, Ph.D.
Manager, Toxicology

ss

cc: S. J. Barbee
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