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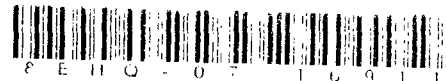
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**Certified Mail**

March 11, 2009

Document Processing Center
EPA East – Room 6428 Attn: Section 8(e)
Office of Pollution Prevention and Toxics, US EPA
1200 Pennsylvania Avenue NW
Washington DC 20460-0001

RE: TSCA 8(e) Substantial Risk Notice: 8EHQ-07-16911; lactose with zinc oxide nanoparticles surface-treated with trimethylhexanoate

To Whom It May Concern:

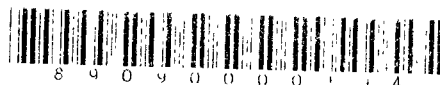
In July of 2007, 3M notified the EPA of preliminary data from a two-week inhalation study in rats conducted on an experimental material, lactose with zinc oxide nanoparticles surface-treated with trimethylhexanoate (micronized alpha-lactose monohydrate particles (CAS 5989-81-1, 93% w/w) and hydrophobic zinc oxide nanoparticles (9% w/w) consisting of a zinc oxide core (CAS 1314-13-2, ~70% w/w) surface-modified with hexanoic acid, 3,5,5-trimethyl-, zinc salt (CAS 84682-03-1, ~30% w/w). Although this test material was being investigated for an FDA-regulated application, 3M chose to notify the EPA of the effects observed in this study. At the time of July 2007 submission, the identity of the test material was considered confidential; however, due to the current status of the test material, this is no longer necessary.

As explained in the initial submission letter, the objective of the study was to evaluate the potential toxicity of the test material when administered to rats for two weeks (ten one-hour exposures in a two-week period) via nose-only inhalation at a target concentration of 3 mg/L. Following the first session of dosing, one animal was found dead. Upon necropsy of this animal, evidence of severe lung irritation, including pulmonary hemorrhage was observed. All other animals exhibited signs of breathing difficulties, including cyanosis and rapid abdominal respiration, and were euthanized in moribund condition following the second exposure. Investigators believe the lung irritation was most likely caused by the trimethylhexanoate surface modifier, which is thought to have dissociated from the nanoparticle *in-vivo*.

The final report and a report amendment for this study are enclosed.

Please contact me at 651-737-1374 or djluebker@mmm.com if you have any questions or if we can provide additional information.

Sincerely,

Deanna J. Luebker, PhD
3M Toxicologist and TSCA 8(e) Coordinator

Enclosure

Contains No CBI