

Environmental Health Department

W. L. MANN
Manager

August 1971

Mr. C. J. Cohen
Lake Avenue M-2
Bristol, Connecticut 06010

Dear Mr. Cohen:

Dr. J. F. Cole, Director, Environmental Health for the Lead Industries Association, Inc., has forwarded your inquiry regarding the use of titanium dioxide in paint.

Titanium dioxide has been developed for, and is used extensively as a paint pigment, because of certain superior properties including toxicological and chemical inertness.

Enclosed for your information is a list of tests and references which show that titanium compounds, principally titanium dioxide, are non-toxic for all normal purposes and uses, both as to human internal ingestion and external applications. We also enclose photocopies of the American National Standards Institute (formerly USA Standard) Z66.1-1964, entitled "Specifications to Minimize Hazards to Children from Residual Surface Coatings Materials" and the American Conference of Governmental Industrial Hygienists "Documentation for Titanium Dioxide".

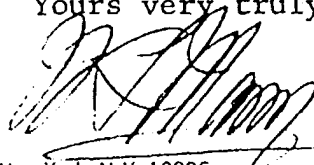
A typical analysis of the heavy metals content of our "TITANOX" pigments is as follows:

Antimony	210 ppm
Arsenic	< 5 ppm
Cadmium	< 50 ppm
Mercury	< 0.025 ppm
Selenium	< 100 ppm
Barium	3 ppm
Lead	30 ppm

You will note the heavy metals content is less than that permitted under the Z66.1 standard specifications, section 2, sub-par. 2.

I trust you will conclude on your review of the attached material that the use of titanium in paint in no way constitutes a hazard even if it should be ingested accidentally.

Yours very truly,



Enclosures

WLM:cd

Copy to: Dr. J. F. Cole ✓

LIA-77101