R. J. Kluberton - Burlingame
W. G. Tyson, Jr. - Burlingame
J. A. Zapp, Jr. - Employee Relations Dept., Haskell Lab.

T-gen

Wilmington, Delaware
September 17, 1971

P. E. HARRISON
F. & P. DEPARTMENT
BURLINGAME

INHALATION HAZARD - EMULSION PAINTS

Ref: Your Letter of September 1, 1971

The concentration of solid particles that can be inhaled during any spraying operation is set by the American Conference of Governmental and Industrial Hygienists at 10 mg/M$^3$. This Threshold Limit Value represents the level at which "inert" particles can be safely inhaled during a 40 hour work week without causing health problems. Of course, when toxic materials are present, this limit is lower.

For mercury, the Threshold Limit Value is 0.1 mg/M$^3$. Since the maximum mercury content of the emulsion coatings under consideration is 0.14%, based on solids, in no case will the mercury threshold be exceeded, provided the limit of 10 mg/M$^3$ of particulates is met.

For lead, the Threshold Limit Value is 0.15 mg/M$^3$. The maximum concentration of lead in Lucite® House and Wall Paints, and Lucite® Exterior and Interior Trim Enamels is 0.6%. Again, the lead limit will not be exceeded as long as the limit of 10 mg/M$^3$ for particulates is met.

The 830-051 primer does contain 8.8% lead based on solids; therefore, particulate concentrations will have to be kept below 1.7 mg/M$^3$ in order to maintain the lead level below 0.15 mg/M$^3$.

In summary, mercury should cause no problem in spraying the subject paints, and lead presents a problem only with the 830-051 primer where the particle concentration will have to be reduced from 10 mg/M$^3$ (established for inert particles) to 1.7 mg/M$^3$.

WILLIAM W. MILLER
TOXICITY COORDINATOR

WWM:peb

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