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EXPERIMENTAL STATION

POWDER COATINGS - TOXICITY HAZARD

The composition and particle size information for acrylic powder coatings has been reviewed with Haskell Laboratory to assess the potential hazard and determine if toxicity tests need to be run.

Listed below are the conclusions of this discussion:

1. Any powder coatings will have to meet the ACGIH and OSHA threshold limit values for all components of the powder.
2. All components of the basic binder can be treated as "nuisance particulates". The TLV for these materials is 10 mg./M³ (ACGIH) and 5 mg./M³ under 10u diameter (OSHA).
3. Most pigments and fillers can similarly be treated as nuisance particulates unless they contain toxic heavy metals. Some of the TLV's which may effect the pigment concentration are, antimony 0.5 mg./M³, carbon black 3.5, chromates 0.1, cobalt 0.1, lead 0.15, and nickel 1.0.
4. As long as the particle size distribution remains substantially the same as that given in your letter of December 8, 1971, there is no problem with "respirable dust" (particles 10 u).

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It is the opinion of Haskell Laboratory, that the powder coatings can be safely used as long as the applicable threshold limit values are not exceeded at the sight of the spray operator. Some measurements of particle concentration will probably have to be done at the application sites to determine conformance to threshold limit values.

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WM:dda