

cc: P. N. Jones - Experimental Sta.
W. M. Duffy - "
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Jr
J. A. ZAPP, JR.
EMPLOYEE RELATIONS
HASKELL LABORATORY

POWDER COATINGS - TOXICITY HAZARD

New powder coatings have been developed for use as automotive paints. We would like an assessment of the potential hazards associated with the use of these powders and the precautions necessary and tests required before they can be used on a commercial scale.

Following is a description of the powders and how they will be used:

I. Composition

% by Weight

acrylic resin (MMA/BMA/MMA)	46 - 52
cellulose acetate butyrate	19 - 22
ethylene glycol adipate benzoate	12 - 14
neopentyl glycol adipate benzoate	2 - 3
silicone resin	0.4 - 0.5
pigments (i.e., titanium dioxide, carbon black, organic pigments, lead chromate, iron oxide, etc.)	100 - 20

Finished powders would generally have low monomer content (less than 1%), since most residual monomer left after initial polymerization would be lost during the drying step to form the powder.

II. Particle size - the size distribution of the powder particles is given below as counted on a coulter-counter. This represents the number of particles rather than the weight at finer than a particular size.

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<u>Particle Size (microns)</u>	<u>% (number) finer than</u>
75	100
45	50
20	25
10	8
3	about 1

III. End Use - The powders will be sprayed on new cars at the rate of about 4 lbs./car. The overspray (about 25%) is collected in a cyclone particle collector for reuse. The actual particle concentration encountered by a spray operator is not known.

If you need more details concerning the powders or their use, please let me know. May we please have an answer by February 4, 1972.

**WILLIAM W. MILLER
TOXICITY & POLLUTION CONTROL COORDINATOR**

WWM/pa