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SAFETY OF METALLIC VS. NON-METALLIC PAINTS

The metallic effect in automotive paint is achieved exclusively by the use of aluminum flakes. Thus, the only potential source of additional hazard in using metallic versus non-metallic paints would be due to the possible inhalation or surface contact with resin-coated aluminum flake.

Numerous studies on the toxicity of powdered aluminum and its salts consistently confirm the non-toxic nature of aluminum. Listed below are a number of quotes found in "Industrial Hygiene and Toxicology", Vol. II, pages 987-993, concerning the toxicity of aluminum:

Acute toxicity. Insoluble forms of Al appear to be without demonstrable toxicity by any route provided their administration is not associated with substances that are tissue irritants.....

Chronic toxicity. No instance of this form of injury from Al or its salts has been demonstrated for either animal or man,.....

Metabolism. The physiological basis for the innocuousness of Al per se would appear to reside, in part at least, in its outstanding lack of significant absorption from either the alimentary or the respiratory tracts.....

Dermal effects of Al. Al filings rubbed into the skin of man or animals and Al splinters embedded into the skin do not induce a hypersensitive state.....

Hygienic standards of Exposure. No threshold limit for Al has been set by any official agency in this country because of the lack of hygienic significance associated with Al exposures. A level of 15 mg./cu. meter has been recommended by Elkins, this represents an upper limit of dustiness set for all innocuous dusts."

Since no toxicological hazards have been attributed to aluminum, it can only be concluded that use of metallic versus non-metallic paints does not present any additional hazard to a painter's health.

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