

Choose paints with care as it may pose a health hazard

Though there is general awareness about the adverse effects of paints used in the construction industry, many poisonous metals like hexavalent chromium are still used

Early this week, a few Indian paint manufacturers were certified as environmentally sustainable because their products were found to contain only low quantities of heavy metallic compounds. However there are other paints that contain volatile organic compounds (VOC) which degrade the environment and pose a hazard to health.

The Indian Green Building Council analyses many products, and awards Indian Green Pro logos that manufacturers display on their labels to symbolise the sustainability standards they comply to. Similarly, the Australian Green Building Council tests and rates products as per the Australian Green Star standards. Besides, buildings rated by accreditation agencies are not awarded points for sustainability if found to use harmful paints. As a result of these actions consumer preference for water-based paints, acrylics and even milk paints because of their low VOC contents has increased in the recent times.

Heavy metals are naturally occurring elements with high atomic weight and densities at least 5 times greater than water. The main threats to health are by the heavy metals such as lead, cadmium, mercury and arsenic. These metals or their compounds have well documented ill-effects on health. Tempera, a popular form of paint used in the Byzantine world and the Middle Ages in Europe, contained mercury ore as one of its components.

The most common heavy element in paints however is lead. Lead compounds were used as pigments, as agent to speed up drying, increase durability, retain freshness, resist corrosion and reduce moisture absorption. Zinc chromate known as zinc yellow or yellow was for long used as a pigment by painters. Many supplies used for

artwork may still contain harmful substances. Modern artists could avoid working with powdered paints and choose brushing and dipping techniques over spray methods for application. The adverse effects of paints in the building industry are now recognised. Paints with lead are unfortunately still heavily used in the building industry.

Acrylic, latex, epoxy, and even some oil paints are known to contain heavy metals. Paint primers contain hexavalent chromium which is a toxic heavy metal compound. Such paints or primers deteriorate over time and poison the air which affects those inhaling the carcinogens.

Poisonous fumes are produced while heating paints. It is important to wear a protective mask when painting interiors or exteriors, while chipping or sanding painted surfaces, or when working with dusty chalks.

Similar protection must be taken during airbrushing or spraying paints. Paints should not be used carelessly for they are easily dispersed or absorbed by the air, earth or water. Over time toxicity in human and animal tissues builds up by direct contact or through the food chain with disastrous consequences. To stay safe, reduce exposure to heavy metals. Always choose water based paints over those containing or requiring a solvent for mixing. Paints with premixed pigments are also a preferable choice as some pigment powders could easily fly in the air and be inhaled. Be aware! Whatever the next painting project, be it a room in the house or an art assignment for school, choose the paints carefully without heavy metals and use protective gloves and masks when handling them.

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