

Know your hazard:

Liquid Industrial Paints

What are liquid industrial paints?

Liquid industrial paints are of two types, water-based and solvent-based. They are distinguished on the basis of amount of Volatile Organic Compounds (VOC) content present in them.

Water-based or emulsion paints





Lower VOC levels

Lower risk of exposure to respiratory hazards

Solvent-based or oil-based/alkyd paints





Higher VOC levels

Higher risk of exposure to respiratory hazards due to VOC like Xylene, Toluene, and Ethyl acetate

Sources of exposure to liquid industrial paints

Workers can be exposed to harmful effects of paints while:



Brushing or rolling



Application by spray



Using cleaning agents and reducing agents on paints

Harmful effects of using solvent-based or oil-based/alkyd paints

Exposure risk to solvent-based paints increases because of their composition that includes reducing agents and clean-up solvents. Certain solvent-based paints include isocyanates, a class of chemical compounds.

Exposure to isocyanates can cause:



Skin irritation



tightness



breathing



Adverse effect to respiratory tract





How can one protect against it?

In order to reduce exposure and risks to workers, you can:



Get Respiratory Protective Equipment

Conduct risk assessment to compare exposure levels with limits.





Implement engineering controls such as local exhaust ventilation (LEV).

What RPE does 3M recommend for protection against liquid industrial paint?

3M offers respiratory protection equipment designed for different types of paint, whether water-based or solvent-based, and the specific airborne contaminants.

Type of Respirators

Recommended **3M Respiratory Protective Equipment****



Powered **Air Respirator**



3M™ Versaflo™ Powered Air Purifying Respirator Starter Kit, TR-619E





3M™ Versaflo™ ABE2K1HgP Filter TR-6580E for TR-600 PAPR





Inner Shroud S-707-10



Air Respirator



3M™ Versaflo™ Vortex Cooling Assembly V-100





3M[™] Versaflo[™] Replacement Painter's Hood with Inner Shroud S-707-10



Reusable Respirator





3M™ Secure Click™ Full Facepiece Reusable Respirator FF-800 or Half Facepiece HF-800 Series





3M[™] Secure Click[™] Multi-Gas/Vapor Cartridge D8006





3M™ Particulate Respirator 9913, P1, with Nuisance Level Organic Vapor Relief



3M™ Particulate Respirator 9542V, KN95/P2, with Valve and Nuisance Level Organic Vapor Relief

*It is estimated that 5% - 20% of workers can become sensitised to isocyanates. Sensitisation is the body's allergy-like response to a substance that has been inhaled or touched by a susceptible individual. **This is only recommendation for minimum PPE required. Each work application must be evaluated by a competent person as required by local law and

regulation for the hazard and risk before selection of right PPE. Workplace rules and regulations must take precedent, if more stringent.



REQUEST A DEMO

protection is best suited for your work environment, scan the QR code



READ MORE For more information on the

disclaimers, scan the QR code for the technical bulletin.



EXPLORE MORE To discover variety of

respiratory protection equipment from 3M, for your