



HEALTH & SAFETY

National Paints places great emphasis on the safe use of paint and wherever possible, products are designed to minimize potential hazard. Thus there are water based and solvent-free systems within the National product range which reduce the risk of fire and consequently reduce interference with other workers in the vicinity of painting operations. But the majority of paints in current use are still solvent-borne and these are essentially therefore flammable. Most paint solvent, many pigments and some binders too are toxic. Nevertheless, most paint materials are quite safe if handled with due precaution; accidents can be prevented by adopting proper working attitudes and good housekeeping practices.

Fire Hazard:

The opening of a tin of solvent-borne paint immediately releases solvent vapours. The faster a paint solvent evaporates; the lower will be its flash point (defined as the lowest temperature at which the paint gives off sufficient vapours to form an inflammable mixture in air). If ambient temperatures are close to the flashpoint quoted in the Product Data Sheet, there is considerable risk of fire or explosion in the presence of a spark or open flame. Even if ambient temperatures are well below the flash point, there may be a fire risk. Therefore, no naked flames, lighted cigarettes, motors, electrical equipment, electrical switches, torches, etc. should be allowed in the vicinity of painting operators and maximum care should be taken, to avoid sparking by the use of non-sparking tools and grounding all equipment (e.g. airless spray).

In addition, ensure that good ventilation exists so that no build up of vapours get accumulated and the paint and solvent cans are closed when painting operations have stopped. It is accepted practice to reduce vapour concentration to less than 10% of L.E.L. (Lower Explosion Limit). Mop up solvent spills and dispose daily of paint rags, with care! In the event of fire, do not extinguish with water but use dry foam, powder or Carbon dioxide (CO₂) fire extinguishers.

Health Hazard:

Many paint materials are noxious, intoxicating, irritant or toxic to a greater or lesser extent. The route of intake into the body may vary.

1. Ingestion:

It is unlikely that personnel will knowingly consume paint. However, in order to minimize the risk of this occurrence it is recommended that food not be stored, prepared or consumed in paint stores or in the vicinity of painting operations. In the event of ingestion, consult a medical practitioner immediately.



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2. Inhalation

Particular problems in this respect refer to the dusts generated by abrasive blasting and to solvent vapours and spray mists generated at application, particularly by spraying procedures.

When surface preparation involves removal of old coatings, try to minimize the dust generated to protect workers and neighborhood communities from this dust and dispose off coating residues carefully. Workers can be protected by the use of proper respirators with regular changes of cartridge.

Spraying operations may develop paints mists, which will then be present locally at the site of operation or may drift downwind affecting workers in other areas. The latter condition may be avoided by ceasing spraying in wind, but spray operatives may need the protection of a cartridge respirator to filter out these particles of paint. In bad circumstances, an air-fed hood or mask may be necessary.

Solvent fumes will be present around most spraying operations and as they are heavier than air they will be present near the ground, displacing air. Good ventilation should always be available to remove these fumes but care should be taken to vent the fumes safely. If good ventilation is not possible, air-fed hoods and masks should be used and these should always be used when entering spaces, where fumes could have accumulated.

The most common symptoms of inhalation of solvent fumes are dizziness, drunkenness, headaches, general indisposition, sleepiness and nausea. Operatives experiencing these effects should be moved into fresh air and should not return until the symptoms have disappeared and the ventilation has improved.

3. Skin and eye contact:

Paint materials may make contact with the skin and eyes, through spillages, splashes, and paint spray mists, etc. The best way to avoid this contact is to use proper working clothes that cover as much as possible of the body, including gloves and safety goggles. Other areas of the body might still be exposed (especially neck, parts of the face around the goggles and parts of the arms) and it is recommended to use a non-greasy barrier cream here. If clothes become soaked in paint, change affected garments immediately and thoroughly wash them with soap and water.



PROTECTIVE COATINGS

TECHNICAL DATA SHEET

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Paints splashes on the skin should be removed with soap and water and not with solvents. In the event of paint or thinner coming into contact with the eyes, irrigate them with water

and seek medical advice immediately. Finally, always wash hands and rinse mouth after completion of painting operations.

Following minimum precautions to be taken:

- a.) Note carefully the precautionary notices on the paint tins/material safety data sheet.
- b.) Provide adequate ventilation during application.
- c.) As most paints contain flammable materials, keep away from sparks and open flames and do not permit smoking in the vicinity.
- d.) Avoid skin contact and inhalation of spray mists and fumes.
- e.) If the paint comes into contact with the skin, wash thoroughly with soap and water. If paint splashes the eyes, irrigate with water and seek medical advice immediately.
- f.) Keep the paints away from the reach of children.

The above notes are not intended to be exhaustive and do not cover all eventualities during the storage and application of paint. They are intended as a guide to the minimum precautions that should be taken with all National products. Additional information on particular products can be obtained from your local National Paints Company.