

**HEALTH & SAFETY**

National Paints places great emphasis on the safe use of paint and wherever possible, products are designed to minimise potential hazard. Thus there are 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 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 ensues 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 CO<sub>2</sub> 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 minimise 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.



## PROTECTIVE COATINGS

## GENERAL TECHNICAL DATA SHEET

### HEALTH & SAFETY

#### *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 minimise the dust generated to protect workers and neighbourhood 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, 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.

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.



## PROTECTIVE COATINGS

## GENERAL TECHNICAL DATA SHEET

### HEALTH & SAFETY

Following minimum precautions to be taken,

- a). Note carefully the precautionary notices on the paint tins.
- 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.

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 provided by your local National Paints Company.

**HEALTH & SAFETY**  
**FOR SOLVENT BASED PAINTS AND COATINGS**

**General Precautions :**

National Paints places great emphasis on the safe use of paint and wherever possible products are designed to minimise potential hazard. For taking care of pollution and ecological problems, water based systems have been developed, however there are products based on solvent based systems which needs maximum precautions during application of paints. As a manufacturer, it is our social responsibility to create awareness amongst the specifiers and users of our products, to the hazards & preventive safety codes, which must be observed in practice.

- o Before opening of a paint container, user must read following instructions carefully.
- o User must read the Health & Safety data information before starting any paint application.
- o Store the paint material in a proper storage condition.
- o Most of the paints are quite safe to handle with due precautions, accidents can be prevented by opting proper working attitudes and good house keeping practices.

**Special safety precautions for solvent based paint :**

**HEALTH HAZARDS**

- o Inhalation : Painting must be carried out only in well ventilated areas. Inhalation of loose particles, dust and solvent vapours during painting can be avoided. Workers can be provided by the use of proper respirators with regular changes of cartridge.
- o Ingestion : Normally, solvent based paints are noxious, intoxication, irritant or toxic to some extent. It is likely that person may consume paint accidentally. As a preventive measure, do not store paint in place where food is stored.
- o Skin and Eye Contact : The solvent based paints are hazardous if spillage or splashes on skin, eyes. To avoid, wear hand gloves, sensible working clothes. Use non-greasy barrier cream. Extra care to be taken while using solvent based paint, than water based paints.

**FIRE HAZARDS**

The opening of a tin of solvent-based paint immediately releases solvent vapours. Low flash point paint releases faster solvent vapours due to early evaporation of solvent. Better to use high flash point paint, wherever possible. Good ventilation does not allow solvent vapours to accumulate. However, no naked flames, lighted cigarette, electrical equipments, burners, switches should be allowed in the vicinity of painting area. Close the container of paint when not in use.

**FIRST AID :**

- o If insufficient ventilation, wear vapour filter mask; avoid solvent vapours.
- o In case of eye contact, rinse eye with plenty of water and seek medical advise immediately.
- o In case of skin contact, wash with soap and water.
- o In case of inhalation, move person into fresh air.
- o In the event of ingestion, seek medical attention immediately.

**HEALTH & SAFETY**  
**FOR WATER BASED PAINTS AND COATINGS**

**General Precautions :**

National Paints places great emphasis on the safe use of paint and wherever possible products are designed to minimise potential hazard. For taking care of pollution and ecological problems, water based systems have been developed, however there are products based on solvent based systems which needs maximum precautions during application of paints. As a manufacturer, it is our social responsibility to create awareness amongst the specifiers and users of our products, to the hazards & preventive safety codes, which must be observed in practice.

- o Before opening of a paint container, user must read following instructions carefully .
- o User must read the Health & Safety data information before starting any paint application.
- o Store the paint material in a proper storage condition.
- o Most of the paints are quite safe to handle with due precautions, accidents can be prevented by opting proper working attitudes and good house keeping practices.

**Special safety precautions for water based paint :**

**HEALTH HAZARDS**

- o Inhalation : Painting must be carried out only in well ventilated areas. Inhalation of loose particles, dust and paint vapours during painting can be avoided. Workers can be provided by the use of proper respirators with regular changes of cartridge.
- o Ingestion : Normally, water based paints are nontoxic, not irritant to great extent. It is likely that person may consume paint accidentally. As a preventive measure, do not store paint in place where food is stored.
- o Skin and Eye Contact : The water based paints are non-hazardous if spillage or splashes on skin., eyes. However better to wear hand gloves, sensible working clothes. Use non-greasy

**FIRE HAZARDS**

The opening of a tin of water based paint immediately does not releases any vapours. Water based paint therefore is not having fire hazards, and very safe to use and handle.

**FIRST AID :**

- o If insufficient ventilation, wear vapour filter mask; avoid solvent vapours.
- o In case of eye contact, rinse eye with plenty of water and seek medical advise immediately.
- o In case of skin contact, wash with soap and water.
- o In case of inhalation, move person into fresh air.
- o In the event of ingestion, seek medical attention immediately.

barrier cream.