



# Health and Safety in the Surface Coating Industry

## Storage of paints and surface coatings



### Storage and handling

The paints and surface coatings that you handle are hazardous. They need to be stored securely and any leak or spill contained to avoid harm to people, property or the environment.

Paint is sold through hardware stores and specialist paint stores. The shops will generally need a warehouse or storage room to support the retail operation.

Shops specialising in architectural products will hold significant quantities of paints, the majority of which will be water-borne. The paints are supplied in metal or plastic cans, up to 4 litres' capacity or plastic pails of 10 or 20 litres' capacity.

To optimise stock and maximise flexibility of colours, a generic white paint is tinted (coloured) at the point-of-sale. The tinting operation requires the container to be opened briefly for the tints to be added.

Due to the nature of the retailing and wholesaling operations, the water-borne sector represents a relatively low risk in respect to storage and handling.

Industrial products are supplied in metal cans or pails. Containers are usually shipped from the supplier in cardboard cartons or trays on pallets, but once they arrive at the shop, individual containers are unpacked as shelf stock.

Shops are encouraged to minimise the total quantity of flammable products. This is the case whether they are architectural or industrial and protective paints.

### Where to start – product lists and classification

Substances are classed according to their hazardous properties (e.g. whether they are flammable or poisonous to people). The nature of these hazardous properties and the total amount of product you have will influence the way they should be stored.

This means that before you can determine your storage requirements, you need to make an inventory (list) of the products you use and the quantities you are likely to have at any one time.

You will also need to know the hazardous properties of each substance. Product labels and safety data sheets will provide you with this information.

### Segregation of substances

Substances with different classifications are often incompatible with each other and must be stored separately. The number of surface coatings and related products held in a retailing/wholesaling operation means it is highly likely there will be incompatibility and segregation requirements. Incompatible substances include:

#### Flammable aerosols (class 2.1.2A)

Keep away from all class 3 (flammable liquids), class 4 (flammable solids) and class 5 (oxidising substances or organic peroxides).

#### Flammable liquids (class 3.1)

Keep away from all class 2 (flammable gases), class 4 (flammable solids) and class 5 (oxidising substances or organic peroxides).

#### Flammable when wet (class 4.3)

Keep away from all class 2 (flammable gases), class 3 (flammable liquids), class 4 (flammable solids), class 5 (oxidising substances or organic peroxides) and class 8 (corrosive substances) as well as water.

### Type of storage

Storage must conform to the regulatory requirements. For flammable or oxidising substances, if you hold more than a specified quantity, a location test certificate is required.

Manufacturers will store and use raw materials and stocks of fully made-up products. The quantities are likely to exceed the thresholds set out in the legislation, particularly where flammable products are involved.

Suppliers are also likely to hold stocks of flammable paints, surface coatings and solvents in excess of the threshold quantities and will probably require a location test certificate.

### Location test certificates

This is similar to the previous dangerous goods licence and is required where you hold flammable products. The need is dictated by the quantity of the substances held at a location.

Surface coatings, paints and solvents with a flammable liquid classification will normally be a high (3.1B) or medium (3.1C) flammable hazard. If the products are packed in aerosols then they will have a flammable aerosol classification (2.1.2A).

Premises that store flammable products will need to establish a hazardous substance location where the substances are held if the quantities exceed the following threshold:

- High flammability substances (class 3.1B)
  - 100 litres in closed containers more than 5 litres
  - 250 litres in closed containers up to 5 litres
  - 50 litres if in an open container.
- Medium flammability substances (class 3.1C)
  - 500 litres in closed containers more than 5 litres
  - 1,500 litres in closed containers up to 5 litres
  - 250 litres if in an open container.
- Flammable aerosols (class 2.1.2A)
  - 3,000 litres aggregate water capacity.

If you have substances of different classifications and/or in different size containers, to determine whether or not the threshold for a location test certificate is exceeded requires the quantities of each classification to be divided by the threshold quantity for that classification. A test certificate is required when the sum of these ratios is more than 1.0.

A location test certificate is issued by a test certifier. The test certifier will come to a site, review a number of key areas and, if these meet the criteria, issue you with a location test certificate.

The test certificate is renewed annually, but locations with a good record of compliance may apply to have the duration extended to up to three years. Discuss this option with your test certifier.

If you need a location test certificate for any of the paints and surface coatings covered by a group standard, you must have this by 1 January 2008. Manufacturers or suppliers holding substances already transferred may already have a location test certificate, in which case the group standard substances should be included when your certificate is renewed.

If you are unsure whether you need a test certificate, you should seek advice from a test certifier.

### Stationary containers

Stationary containers (tanks and process vessels) that have a capacity in excess of 250 litres may also require a test certificate. Tanks of this size are only likely to be found in paint or surface coating manufacturing operations. If you have a large tank, contact a test certifier to discuss the requirement.

### Further information

A list of test certifiers is available at: [www.ermanz.govt.nz/search/tc.html](http://www.ermanz.govt.nz/search/tc.html) To find a test certifier operating in your area, choose your **Region**, tick the **Location Test Certificate (Class 2-5)** box and click **Search**.

*A Quick Guide to Location Test Certificates* is at: [www.ermanz.govt.nz/resources/publications/pdfs/ER-QG-23-1.pdf](http://www.ermanz.govt.nz/resources/publications/pdfs/ER-QG-23-1.pdf)

For information on storage and certification requirements for group standard substances see: [www.ermanz.govt.nz/hs/groupstandards/siteandstorage.html](http://www.ermanz.govt.nz/hs/groupstandards/siteandstorage.html)

An information sheet for the HSNO: *Approved Code of Practice for Hazardous Substances Storage Compatibility* is available at: [www.ermanz.govt.nz/resources/publications/pdfs/ER-IS-30-1.pdf](http://www.ermanz.govt.nz/resources/publications/pdfs/ER-IS-30-1.pdf)

Information is also available from the ERMA New Zealand Hazardous Substances Compliance Line, 0800 376 234, or by emailing [hsinfo@ermanz.govt.nz](mailto:hsinfo@ermanz.govt.nz)

