

# Working safely with **solvents**

**A guide to safe working practices**

# WARNING

**If you're exposed to solvents, they can, depending on the circumstances, affect your health in many ways. In some cases, very seriously.**

**This leaflet gives you important advice about avoiding risks at work when you use solvents and products that contain them.**

***Please take time to read this leaflet.***

## What is a solvent?

Many chemical substances which are used to dissolve or dilute other substances and materials are called 'solvents'. Industrial solvents are often mixtures of several individual substances. They can be found under a variety of trade names.

## Where are solvents used?

You are most likely to be exposed to solvents if you work in the following industries where they are used extensively.

- Engineering
- Construction
- Chemicals
- Printing
- Rubber
- Plastics
- Pharmaceutical manufacture
- Footwear
- Textiles
- Foodstuffs
- Woodworking
- Dry cleaning
- Paint manufacture
- Ink manufacture

They are also found in many products including:

- Cleaning and degreasing materials
- Paint removers

- Paints, lacquers and varnishes
- Adhesives
- Inks and ink removers
- Pesticides
- Toiletries

## How can solvents affect my health?

Different solvents can affect your health in different ways. Some of the short-term effects are:

- **irritation of eyes, lungs and skin;**
- **headache;**
- **nausea;**
- **dizziness;**
- **light-headedness.**

**Unconsciousness and even death can result from exposure to very high concentrations of solvent vapours.**

When you are affected by solvents, there may be an increased chance of having an accident.

There can also be long-term effects on your health from repeated exposure to particular solvents. These may include dermatitis. Other possible effects on health vary according to which solvent you are exposed to.

## How can solvents get into my body?

- If you breathe in vapours and fumes.
- If they come into contact with your skin and get absorbed.
- If you swallow liquid solvents.

## What should I do if I think my health might be affected?

If you believe that your health is being affected through work with solvents, or if you are concerned that adequate precautions are not being taken, you should first approach your supervisor, safety representative or doctor as appropriate. **Show them this leaflet.**

## What precautions should I take?

- The more you know about solvents and the sensible precautions you should take, the safer you will be. That's why getting information and training is so important.
- Make sure your employer provides you with details of the hazards of the particular solvents you use, the precautions to take when you use them and the procedures to follow in an emergency.
- Read the supplier's safety data sheets and container labels and follow the advice on them. Ask your employer for clarification if you need to.
- Ask if solvent-free materials or safer solvents can be used.

### CONTROL OF VAPOURS

- **Make** full use of any ventilation equipment your employer provides to remove vapours from your work area.
- **Report** to your employer any damaged or defective ventilation plant or protective equipment.
- **Wear** any respiratory protection which your employer provides. Keep protective equipment in a clean

place. Make sure it is kept clean so it is fit to use.

- **Make** the most of natural ventilation where appropriate, by opening doors and windows.
- **Prevent** unnecessary evaporation of solvents by using the minimum amount for the job, keeping lids on containers and using sealed containers for solvent-contaminated waste.
- **Do not** leave solvent-contaminated rags lying around.

### SKIN CONTACT

- **Avoid** skin contact with solvents and any products containing solvents by wearing suitable protective clothing (gloves, apron, goggles or face shield etc) where necessary.
- **Do not** use solvents to remove paint, grease etc from your skin.

### OTHER PRECAUTIONS

- **Do not** eat or smoke in areas where there are solvents.
- **Wash** thoroughly after working with solvents before eating or smoking.
- **Do not** smoke, weld, burn or use any naked lights in areas which may contain the vapour of chlorinated solvents as very toxic gases may be given off.

## Working in confined spaces

Your employer should have checked if work can be done another way so that entry or work in confined spaces is avoided. Where this is unavoidable, a safe system of work must be followed with adequate emergency arrangements in place.

When working in confined spaces special precautions are needed to prevent you from being exposed to solvents. In a

confined space like a tank, pit, a small room or inside a vehicle, solvent vapours cannot escape easily and can build up to dangerous and even fatal concentrations very quickly. Beware of a build-up of vapours and gases which could be poisonous, explosive or flammable.

Special precautions are needed and these are described in a separate booklet *Safe work in confined spaces*. In general:

**Do not** use any materials containing solvents unless the area is adequately ventilated and, where necessary, you are provided with suitable respiratory protection.

**Do not** enter a confined space where there may be solvent vapours, unless your employer has ensured it is safe for you to do so by ventilating the space and testing the atmosphere, or unless special precautions are taken.

## RESPONSIBILITIES

### Your employer must:

- **assess** the risks to your health from your use of solvents and the precautions necessary to protect it;
- **introduce** measures to prevent you from being exposed to solvents or, where this is not reasonably practicable, to ensure that your exposure is adequately controlled;
- **ensure** that control measures are used, equipment is properly maintained and checked and procedures are observed;
- **where** necessary, monitor your exposure and carry out appropriate health surveillance;
- **inform** you about the risks and the precautions necessary to protect your health;
- **train** you in the use of control measures and any protective equipment which is required.

### You must:

- **co-operate** with your employer;
- **make** full use of any control measures, use the protective equipment provided and report any defective equipment;
- **where** appropriate, attend health surveillance procedures at your workplace.

If you need further advice, you should contact HSE's InfoLine (Tel: 08701 545500).

**This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

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