ENVIRONMENTAL & OCCUPATIONAL HEALTH & SAFETY UNIT

OH&S Bulletin

SOLVENTS

The (Angry) Painters Syndrome.

Solvents can cause serious illness. Exposure to high levels of solvents can cause unconsciousness or even death.

Less serious exposure can cause headaches, irritability, mood changes, dizziness, forgetfulness, nausea, weakness and abnormal tiredness. Usually these effects disappear when you stop working with solvent products, although long term or high exposure increases the risk of permanent damage.

Other effects of exposure are eye and upper respiratory tract irritation, dermatitis and other allergic reactions. Many solvents can cause liver damage and some can damage your heart.

According to WorkSafe Australia, the following solvents are known or suspected of causing cancer and/or of being a reproductive hazard.

· Benzene: Also known as benzine, coal naptha, mineral naptha or pyronbenzol. Known to cause cancer in humans (Category 1 carcinogen).
· Carbon tetrachloride: Also known as tetrachloromethane, perchloromethane, carbon tet or CTC. Probable carcinogen to humans (Category 2).
· Methylene chloride: Also known as methylene dichloride or methane dichloride. Suspected carcinogen to humans (Category 3).
· Epichlorohydrin: Also known as propane, 1 - Chloro2,3,epoxy or chloropropylene oxide. Probably causes cancer in humans (Category 2).
· Formaldehyde: Also known as formol, methylene oxide, methyl aldehyde or formic aldehyde. Probable carcinogen (Category 2).
· Tetrachloroethylene, 1,1,2,2-tetrachloroethylene or "perc". Suspected to cause cancer in humans (Category 3).

Solvents can enter your body by breathing in the vapour, through skin contact (most solvents can be absorbed through unbroken skin) or by swallowing contaminated food or drink.

Large amounts of solvents are used in industry. They are often used a cleaners or degreasers, and as an ingredient in paint, ink, glue, varnish or concrete curing agents. Many of these products have more than one solvent in them. Examples are:

· Paint: white spirits, xylene, toluene.
· Spray paint: methyl ethnyl ketone, other.
· Paint Stripper: methylene chloride, o-dichlorobenzene
· Fibre Glass: styrene, acetone
· Furniture Making: xylene, n-hexane
· Adhesive: toluene, acetone, n-hexane, phenol/formaldehyde resin, ethanol.
· **Concrete Curing Agents:** xylene, benzene, methyl isobutyl ketone, isobutenol.

The CFMEU Environmental & Occupational Health & Safety Unit acknowledges the funding support from Incolink.

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Control Measures

· Know about the solvents that you use and use the safest possible product for the job.
· Always read the Material Safety Data Sheets (MSDS) for all the products that you use. Chemwatch MSDS are available from the union occupational health & safety unit.
· Avoid using solvents that can cause cancer or reproductive hazards.
· Question whether solvents need to be used at all.
· Do not use solvents to clean your hands.
· Do not enter confined spaces where fumes may have collected.
· Clean up spills immediately.
· Work areas where solvents are being used must be well ventilated. A local exhaust system will be needed in most cases. The system should suck air away from you, not past you.
· When engineering controls (removing the hazard) cannot be applied, protective equipment must be worn.
Ensure that protective equipment:

- Fits properly. A face fit should be done when new respirators are worn or at regular intervals ensure that the seal has not worn
- Is effective against the solvents that you are using (there is no one type of glove that is effective against all solvents.
- Is properly maintained.

Suppliers of hazardous substances are required to provide adequate information to employers of any health and safety risks and the steps necessary to eliminate the risks to employees.

The Occupational Health and Safety Act 2004 requires employers to provide a healthy and safe work environment, safe plant and equipment, health and safety information and training, and adequate protective clothing and equipment.

Employees are required under the Occupational Health and Safety Act 2004 to use all personal protective equipment in the correct and safe manner (as instructed by their employer) and to cooperate with their employer to fulfil their duties and not to endanger themselves or others.

For more information phone the CFMEU Environmental and Occupational Health and Safety Unit.

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