

### Demonstration

#### List solvent hazards on site

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#### Explain dangers

Solvents are often used with paints, lacquers, varnishes, adhesives, thinners, degreasers, cleaners, glues, and mastics.

You can be exposed—and overexposed—to solvents in various ways.

- 1) Absorption—the solvent penetrates your skin. This could be through direct contact with your skin while you clean tools.
- 2) Inhalation—you can breathe in solvent vapours when you're applying sealants, glue, and paint, or cleaning your tools.
- 3) Ingestion—this means swallowing. You can ingest solvents from your hands while you eat, drink, or smoke.
- 4) Injection—this can happen when your skin is punctured by a high-pressure spray gun.

Different solvents can affect your health in different ways.

Short-term effects include

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

You can pass out and even die from exposure to very high concentrations of solvent vapour.

Solvent exposure has three long-term health effects:

- 1) dermatitis—this is inflammation of the skin. Look for redness, itching, swelling, and blisters.
- 2) nervous system disorders—you may experience fatigue, muscle shakes, memory loss, or reduced mental performance.
- 3) damage to liver and kidneys (chlorinated solvents can cause this).

#### Identify controls

- Some solvents are very flammable. Eliminate sources of ignition in the work area.
- When applying solvent-based materials, make sure there's enough ventilation. Open doors and windows. When that isn't enough, use fans.
- When the material safety data sheet (MSDS) requires a respirator, make sure that yours is approved for protection against "organic vapours." The cartridge is pink and marked "OV".
- Avoid skin and eye contact with solvents.
- Follow the instructions on the product label and MSDS regarding protection, storage, handling, etc.
- If you don't understand the instructions, ask for help. Make sure you know what to do in case of an emergency.
- Don't eat or smoke where solvents are being used.
- After working with solvents, wash thoroughly before eating or smoking.
- Don't use solvents to clean your skin or hair.
- Don't weld on materials that have been cleaned with chlorinated solvents. The result can be some very toxic gases.
- Keep lids on solvents when you're not using them. This keeps vapours from getting into the air.

#### Identify controls

With your crew, review the information on the label and MSDS for a solvent product used on your site.