

Solvents

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

Short-term health effects from solvent exposure include

- Irritation of eyes, lungs, and skin
- Headache
- Nausea
- Dizziness.

Solvent exposure has three long-term health effects:

1. **Dermatitis**—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 any 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 safety data sheet (SDS) requires a respirator, make sure that yours is approved for protection against "organic vapours." The cartridge will be pink and marked "OV".
- Avoid skin and eye contact with solvents.
- Follow the instructions on the product label and SDS 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, drink, or smoke where solvents are being used.
- After working with solvents, wash your hands thoroughly before eating, drinking, or smoking.
- Don't use solvents to clean your skin or hair.
- Don't weld on materials that have been cleaned with chlorinated solvents. This can produce some very toxic gases.
- Keep lids on solvents when you're not using them. This keeps vapours from getting into the air.

Demonstrate

With your crew, review the information on the supplier or workplace label and on the SDS for a solvent used on your site.

Identify any solvent on site that does not have a supplier or workplace label and ensure that a workplace label is made for it.