

# WORKING WITH SOLVENTS

## *Recognizing And Preventing Hazards*

Even if you've worked with degreasers and other solvents for a long time, you might not be aware of how hazardous they can be when you don't handle them properly. Solvents are substances, usually liquid, that dissolve other substances. Some familiar uses include degreasing, spray painting, dry cleaning, and paint softening.

### The Hazards Of Solvents

Solvents can be toxic (poisonous) to the human body, and can burn, catch fire, or cause explosions. They can be especially dangerous because often they have no color or long-lasting smell. Most solvents evaporate quickly and are called "volatile." With volatile solvents, there is the hazard that you can breathe in their vapors.

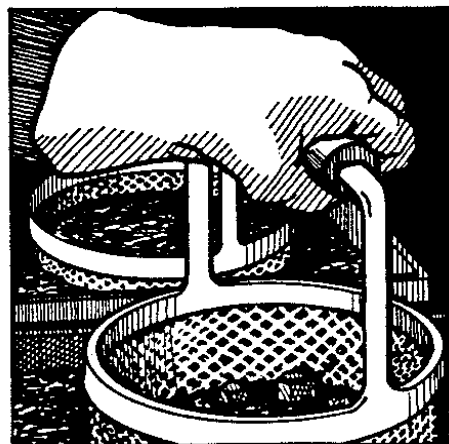
If a spark, flame, or static electricity is present, many solvents can explode. Their upper and lower explosive limits, which tell you when an explosion is possible, are listed on their Material Safety Data Sheets (MSDSs). Some solvents have a "flash point" or catch fire at under 100°F. They are called "flammable," and are hazardous because their flash point may be below normal room temperature. Solvents with a flash point above 100°F are called "combustible."

### Overexposure

You can irritate or damage skin, eyes, lungs, and other organs if you absorb too much of a toxic solvent. Permissible Exposure Limits (PELs) for many solvents have been



Labels and MSDSs list procedures for handling solvents safely.



Always use appropriate personal protective equipment.

set by the Occupational Safety and Health Administration and are listed on the MSDSs.

### Eyes

If a solvent splashes in your eyes, acute (short-term) symptoms can include burning, watering, irritation, and redness. Overexposure to

solvent vapors or mists can eventually cause chronic (long-term) symptoms like blurred vision, constant irritation, or permanent vision damage.

### Breathing And Swallowing

If you suddenly breathe in or swallow a solvent, acute symptoms can include headache, nausea, vomiting, sore throat, dizziness, fatigue, giddiness, rapid or irregular heartbeat, and difficulty breathing. Over time, some solvents, when inhaled, can cause liver, kidney, or nervous system damage, unconsciousness, or even death.

### Skin

One-time exposure, like splashing a solvent on your skin, can cause dry, scaly skin, rashes, burning or irritation. If a solvent enters your bloodstream through the skin, you can experience acute symptoms like those listed for breathing and swallowing. Longterm overexposure to solvents can cause contact dermatitis, a chronic skin condition which may include blistering, redness, and discomfort.

### Your Best Protection

Your best protection is your common sense. Take the time to do the job right and think through all new procedures carefully. Follow your company's Hazard Communication program, use good personal hygiene and always use the appropriate personal protective equipment recommended.