



### ***Discussion leader duties for this session:***

Read your company policy on handling solvents. Know, for example, how your company prefers to dispose of trichloroethane. Putting this solvent in an oil drum means the whole drum is now in a special and expensive classification.

### ***What this Safety Talk covers:***

Handling, using, and disposing of solvents safely.

### ***Discussion notes :***

## **079: Solvents**

### ***Before using a solvent***

Read the MSDS on that solvent.

Obtain the necessary PPE, arrange for the proper ventilation, test the emergency eyewash and showers, and obtain the necessary disposal supplies.

### ***How solvents can affect you***

All of your organs are at risk for damage, no matter how the chemical enters your body. Entry methods are inhalation, skin contact, and ingestion.

Mild problems include drowsiness, a loss of coordination, and similar symptoms that increase accident proneness.

More serious problems include such things as systemic poisoning, respiratory arrest, or a general allergic reaction.

You can suffer severe burns to the skin, eyes, respiratory system, or digestive system. Some of these may not be apparent at the time they are happening. For example, you won't feel a caustic burn the way you would an acid burn, and significant damage may occur before you can wash the affected area.

Contaminants on hands may not produce immediate reactions, and are easily transmitted to the genitals if you don't wash thoroughly before a nature call.

### ***Factors determining severity of effects***

- Length of exposure.
- Amount of exposure.
- Method of exposure.
- Concentration of solvent.
- Characteristics of a particular solvent.
- Environmental factors: temperature, ventilation, airflow, and house-keeping.

### ***Reducing or preventing the effects***

The effects come mainly from skin contact with the solvent or inhalation of its vapors, so take care to use the correct PPE, minimize handling, and observe ventilation requirements. Several solvents can be absorbed through the skin (like a nicotine patch).

Test emergency eye washes and showers in the area where you'll be using the solvent. If such devices are not working or not installed, use portables.

To prevent ingestion, don't eat, smoke, or drink around the chemicals.

Keep your fingers out of your mouth, eyes, and nose. This may sound trite, but the average person puts a hand to one of these orifices four times per minute.

To prevent injection, observe the rules for working around high-pressure lines.

Use the mildest solvent or lowest concentration of a solvent that will do the job.

Use only as much solvent as you need.

