



WORKING SAFELY WITH SOLVENTS

Toolbox Talks for the members of Iowa Association of Municipal Utilities

September 2015

Solvents are liquid chemicals that are used to dissolve other chemicals. They are commonly used in cleaning and degreasing materials and tools. They may also be used in spray painting. Some examples of solvents include acetone, toluene, alcohol, paint thinner, mineral spirits, xylene. Being familiar with, and following the information in your chemical's SDS or on the container's label is the best way to ensure your safety.

Solvents have both physical and health hazards. When the vapors are inhaled they can irritate your eyes, nose or throat and, because they are CNS (central nervous system) depressants and must be used with good ventilation, an overexposure will make you dizzy, sleepy, nauseous, intoxicated and affect your judgement and coordination. Inhalation or skin absorption will also cause long-term health damage by affecting the liver or kidneys, the body's natural toxin filters.

Solvents can also be absorbed by your skin and will dissolve the natural oils in the skin and cause dryness and chapping. Some solvents are also irritating to the skin causing an allergic rash called contact dermatitis. Read your SDS to determine the type of glove material that allows safe handling of your specific solvent.

Most solvents have PELs (permissible exposure limits) or allowable amounts in the air. The lower the limit, the more toxic, or poisonous, the solvent is. Some solvents have strong odors at harmless levels and others have no odor at dangerous levels. Each have different levels of toxicity but even with low toxicity solvents, an exposure to extremely high levels can cause sudden death.



- Most solvents will burn; most are either flammable (flashpoint of $\leq 100^{\circ}\text{F}$) or combustible (flashpoint of $\geq 100^{\circ}\text{F}$) and have an LFL or UFL. These flashpoints and flammability limits are found on the SDS for the chemical. Use UL approved safety cans with flame arrestor and spring closing lid for storage.

Always wash your hands before eating, drinking, smoking or going to the bathroom.