



## ENVIRONMENTAL HEALTH AND SAFETY

Clover Safe notes are intended primarily for 4-H volunteers and members nine years and older

## #91 SAFE HANDLING AND USE OF CHEMICALS



Care must be taken when handling or using chemicals to prevent injuries or poisoning. Review of information available at the U.S. Consumer Product Safety Commission indicates chemicals are often inadvertently ingested or inhaled to cause poisoning or spilled on the skin or splashed in eyes to cause tissue burns, rashes, or inflammation. Chemicals that may be encountered as part of 4-H activities or projects include household cleaning products, fuels, glues, solvents, paints, acids, and bases. Hazards associated with chemical handling and use may be reduced by following the precautions given in this Clover Safe note.

### Hazardous Properties of Chemicals

1. Toxic – chemicals that are poisonous to people.
2. Corrosive – chemicals that are capable of wearing away or destroying tissues.
3. Flammable – chemicals that easily ignited and burn rapidly.
4. Reactive – chemicals that participate readily in processes in which one or more substances are changed into others.

### Precautions for Safe Handling and Use of Chemicals

- Prior to using a chemical, always read the label to understand how to properly handle and use the chemical, including the use of personal protective equipment.
- Wear appropriate clothing for the task. When using chemicals, never wear open-toed shoes or sandals.
- Always use recommended personal protective equipment, particularly eye protection and gloves.
- Follow instructions and procedures when using chemicals including, as appropriate, using chemicals in adequately ventilated spaces.
- Never mix incompatible chemicals: an unstable (explosive) reaction may result.
- Plan ahead for emergencies and know what to do if a chemical is accidentally spilled or splashed on a surface or person. Clean up spills promptly.
- It is a good safety practice to use a less hazardous chemical when an adequate substitute is available.
- Keep chemicals that have flammable hazards away from open flames or other sources of ignition.
- Never put a chemical into an unlabeled container. Containers must always be labeled as to their contents.
- Do not store incompatible chemicals together.
- After use, close chemical container lids tightly and return container to a safe storage location..
- Do not eat or drink while using chemicals.
- Always properly dispose of used chemicals. Do not pour used chemicals with hazardous properties into a sink or storm drain or onto the ground.
- When done using chemicals, clean the work area, store chemicals in their assigned locations, and wash your hands with soap and water. It is a best practice to store chemicals within secondary containment (trays, tubs, dishpans, etc.) to capture potential spills.
- If you are injured by a chemical or exposed to a chemical hazard, immediately notify your project leader, parent, or guardian