**TOOL KIT**  *Reading an MSDS*

*MSDS* stands for “Material Safety Data Sheet.” An MSDS gives details about chemical products used for cleaning, manufacturing, repair, and many other jobs.

The information on an MSDS is very important in all jobs where chemical products are used. A product can be dangerous if a worker does not understand what it is or what its hazards are. The MSDS answers many questions about a chemical product and its safety. It gives more information than you will find on the product label. The information tells you:

- what the chemical is and how it can be dangerous
- what clothing or equipment to wear for protection
- how to avoid fires, explosions, and other accidents
- what to do for first aid if you are exposed to the chemical
- what to do if there is a fire, spill, or other accident

Sometimes you see numbers on an MSDS. These numbers show the risk levels in using the material. Zero (0) means no risk. One (1) means low risk. Two (2) and three (3) mean higher risk. Four (4) stands for the most serious risk.

The law requires all companies that use chemical products to make MSDS information available to employees. Employees have a right to know about the possible hazards of a chemical they use on the job. Find out where your company keeps MSDS files. If you are worried about a chemical at your workplace, look at the MSDS. If you do not understand all the information, ask someone to help you read it. The information can be very important for your safety.
Summary of an MSDS

Here is a short summary of an MSDS. It describes the general areas of information you will find on an MSDS. A real MSDS will be longer. But you don’t have to read all of an MSDS if you have a question. Usually, one or two sections will give the answer you need.

1. Chemical Product and Company Identification
   - gives name of product and explains how it is used
   - gives name and address of company that makes the product

2. Information on Ingredients
   - lists hazardous and nonhazardous chemicals in the product
   - identifies limits of safe exposure to the product

3. Hazards Identification
   - gives hazard ratings (0–4) for the product
   - lists possible hazards to parts of the body
   - identifies any cancer risk from the product

4. First Aid Measures
   - gives medical information and information about first aid treatment for employees who are exposed to the product

5. Fire-Fighting Measures
   - lists combustible chemicals in the product
   - tells how to avoid fire risks when using the product
   - tells how to put out a fire that starts from the product and what protective equipment to wear

6. Accidental Release Measures
   - tells how to clean up the product when it leaks or spills
   - lists protective equipment to wear during cleanup

7. Handling and Storage
   - gives information for safe handling and storage of the product
8. **Exposure Controls/Personal Protection**
   - tells companies how to lower health risks for employees who are exposed to the product
   - lists personal protective equipment employees can wear when using the product

9. **Physical and Chemical Properties**
   - tells how the product will behave at different temperatures
   - tells how the product will behave when mixed with water

10. **Stability and Reactivity**
    - lists other chemicals that can cause a hazard if they are mixed with the product
    - lists materials that can create a hazard if they come into contact with the product

11. **Toxicological Information**
    - gives information about whether the product is toxic, including health effects on both humans and animals

12. **Ecological Information**
    - tells how a spill of the product can be hazardous to animal life and pollute rivers, land areas, air, etc.

13. **Disposal Considerations**
    - gives information for proper disposal of the product

14. **Transport Information**
    - tells how to pack and label the product for safe transport and shipping