

NFPA Color Coding System

NOTES

If employees have trouble reading English you can use symbols as an labeling method.

The NFPA Color Code Warning System is the most common symbol system for identification of hazardous chemicals.

The *Blue Diamond* is the Health Hazard Rating.

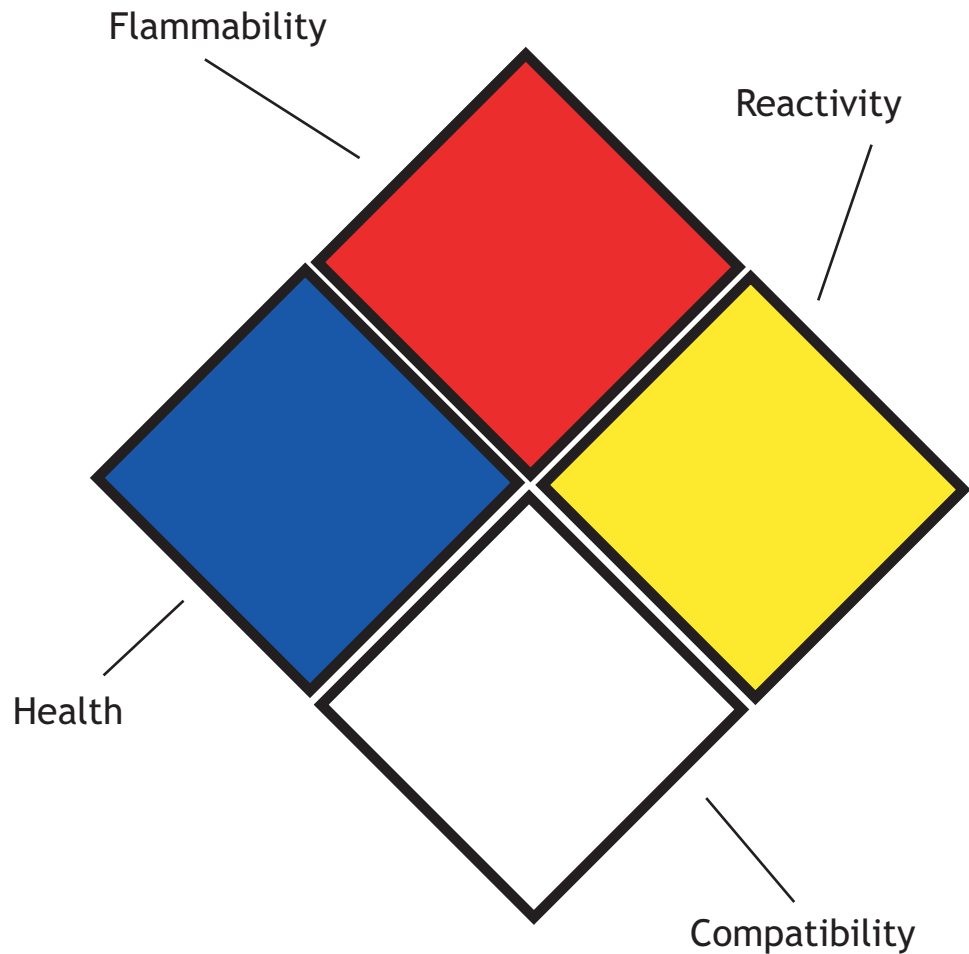
The *Red Diamond* is the Flammability Hazard Rating.

The *Yellow Diamond* is the Reactivity Hazard Rating.

The *White Diamond* contains special symbols to indicate properties and categories not explained by other sections.

Labeling

To completely understand the health hazards and risks and precautions to take read the label and MSDS.



4 - Deadly
3 - Extreme
2 - Hazardous
1 - Slight Hazard
0 - Normal

A Number Based rating system is used within each section (except white diamond), ranging from 0 (least dangerous) to 4 (extremely dangerous).

Excercise extreme care when dealing with number ratings 2,3,4 . . . !

Health Impact

Health hazards include illnesses or other health problems that could develop as a result of overexposure to a chemical.

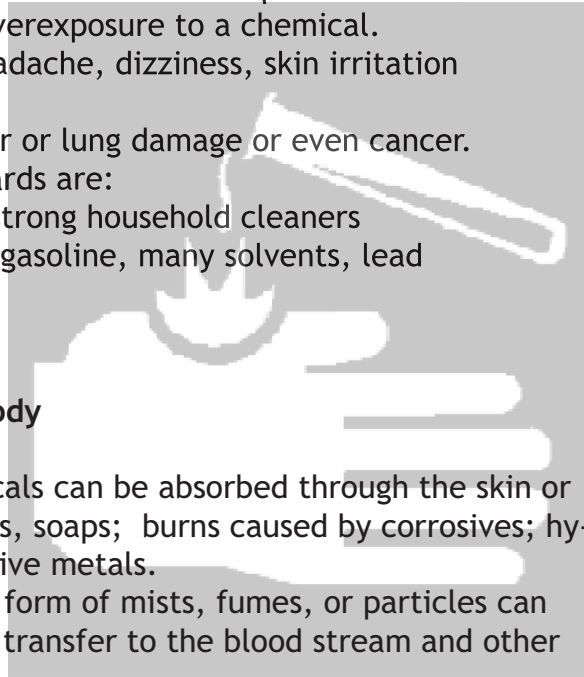
Short-term effects include headache, dizziness, skin irritation and respiratory irritation.

Long-term effects may be liver or lung damage or even cancer.

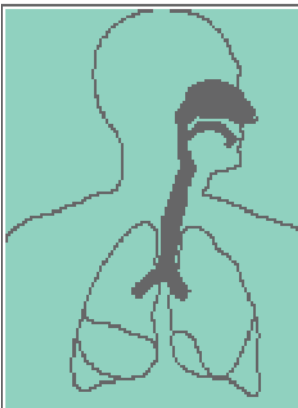
Some examples of health hazards are:

Corrosive: Nitric acid, many strong household cleaners

Toxic: Pesticides, benzene in gasoline, many solvents, lead



How Chemicals Get In The Body



Skin and eye contact: Chemicals can be absorbed through the skin or eyes from solvents, degreasers, soaps; burns caused by corrosives; hydrocarbon solvents; and reactive metals.

Inhalation: Chemicals, in the form of mists, fumes, or particles can penetrate the lung tissue and transfer to the blood stream and other organs of the body.

Swallowing: You can ingest chemicals, which are absorbed into the bloodstream through the stomach and intestines. An example of contamination from swallowing is when contaminated hands come in contact with food.

Penetration: A chemical can enter the body through a needle or other sharp object contaminated with a chemical. Used or contaminated needles are more likely to carry infectious materials than hazardous chemicals.



This first-aid information is generic and will work for some chemicals. However, the chemical label and MSDS will provide the best first-aid information. An MSDS should accompany anyone who is going to see a medical provider because of exposure to a chemical. Some general procedures include:

Eyes: Flush with water for 15 minutes

Skin: Wash with soap and water, remove contaminated clothing

Inhalation: Move to fresh air

Swallowing: Get emergency medical assistance

Personal Protection Equipment (PPE)

PPE

Personal protection equipment is essential for protecting yourself against certain exposures to chemicals.

Face shields are used when working around equipment that cuts, grinds, shears, etc., and also when working with hazardous liquids that may splash. Remember, regular prescription glasses do not meet the requirements of safety glasses. Obtain prescription safety glasses, if needed.

Gloves: There are many types of gloves to protect from many hazards including, but not limited to, hazardous chemicals.

Foot protection: Used when working with hazardous chemicals that may splash onto the feet.

Head protection—hard hats, hoods—protect you from chemical splashes or exposure.

Aprons or full-body suits provide protection against splashes. A fully encapsulating suit protects against splashes, dust, gases, and vapors.



Follow the guidance on the MSDS and Label, wear the proper PPE.

Respiratory Protection

One of the most common means of protecting employee health is **respiratory protection**.

Respirators will protect you from breathing noxious dusts and chemical fumes that can damage your lungs and health. They will only protect you if they are worn correctly and maintained properly.

Use respirators:

During installation of engineering controls

During maintenance operations

For nonroutine tasks

For emergency response

When other controls are inadequate

When other controls are not feasible

