

Chapter 3: HAZARD ASSESSMENTS

Defining Hazardous Chemicals

The OSHA Hazard Communication Standard defines *Hazardous Chemical* any chemical which is a health hazard or a physical hazard. Many chemicals exhibit both types of hazards.

Health Hazards. The OSHA Lab Standard defines hazardous chemical as a chemical for which there is significant evidence based upon at least one study that acute or chronic health effects may occur in exposed employees. The term 'health hazard' includes chemicals which are:

Carcinogens	Irritants
Toxic or highly toxic agents	Corrosives
Reproductive toxins	Sensitizers
Agents which target specific organs including damage to the lungs, skin, eyes, or mucus membranes	

Physical Hazards. The OSHA Hazard Communication Standard defines a physical hazard as a chemical for which there is scientifically valid evidence that it is a:

combustible liquid	flammable	pyrophoric
compressed gas	oxidizer	unstable /reactive
organic peroxide	explosive	Water reactive

Chemicals listed in any of the following references are also defined by OSHA and many states as hazardous:

- 29 CFR Part 1910 Subpart Z;
- American Conference of Governmental and Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) for substances in the work place;
- National Toxicology Program Annual Report on Carcinogens (NTPARC);
- International Agency for Research on Cancer (IARC).

Hazard Assessment Criteria

OSHA and NYS criteria establish a base of 2311 chemicals that are hazardous by regulatory definition and in addition, hazard assessments can be based upon evaluation of information provided by MSDSs and other sources.