Working Safely with Chemicals Stats and Facts



FACTS

A chemical hazard in the workplace chemical hazards can be:

Health hazards – where workers and other personnel are exposed to hazardous chemicals through inhalation, absorption through the skin, or ingestion and swallowing. Chemical health hazards can be acute (nausea, vomiting, acid burns, asphyxiation – which happen immediately) or chronic (dermatitis, asthma, liver damage, cancer – which develop after prolonged exposure).

Physiochemical hazards – where workers, the workplace itself, AND the environment can all be damaged or harmed because of the physical nature of the chemical. These hazards surround a chemical's physical attributes (flammables, explosives, corrosives, self-reactive) and the way they are handled and stored.

Chemical Hazards – Chemicals react violently when they contact other substances and must be used and stored very carefully. Reactions can occur just from exposure to heat, sunlight, and water. Chemical hazards also exist in the way certain chemicals are mixed. Sometime the order in which a substance is introduced to a mix or even the speed at which it is added (think mixing a solvent) can create a dangerous reaction.

Environmental Hazards – Some chemicals are hazardous to the environment. This can be in the form of gas and heat emissions released into the air; toxins seeping into landfill and waterways; damage caused by fires, explosions and chemical reactions which spread outside the worksite.

STATS

- Exposure to harmful substances or environments was previously the sixth ranked cause. In 2020, exposure to harmful substances or environments resulted in 424,360 nonfatal injuries and illnesses involving days away from work. In 2021, 798 fatalities were reported.
- The number of accidents and casualties in its chemical industry, the world's largest, since a deadly blast killed 78 people in 2019, according to the Ministry of Emergency Management.

- 122 accidents occurred in the chemical industry across the country, down 15.3 percent from 2020 and 25.6 percent from 2019, he said. The accidents claimed 150 lives, compared with 178 in 2020 and 274 in 2019.
- According to the latest data from the U.S. Bureau of Labor Statistics, a total of 16,550 nonfatal burns occurred in the workplace in 2020. Of these, at least 3,540 were related to chemical burns or corrosions.
- In 2017, 41 U.S. workers died on the job after a single episode of inhaling chemicals and chemical products—7 more fatal injuries.
- According to the Occupational Safety and Health Administration, Workers suffer more than 190,000 illnesses and 50,000 deaths annually related to chemical exposures.