Toxic Industrial Chemicals

This term refers to a variety of chemicals used or created by industry that can have a significant impact on human health if released into the air or water. A potential threat exists for individuals located downwind or downstream from an accidental or intentional release of chemicals or for people situated near toxic industrial processes.

Toxic industrial chemicals may pose a risk when they are stored in large quantities in one location. An act of sabotage or an accident can result in a large release of toxic material into the air or water. Some material retains its lethality even after traveling a considerable distance. A release of chlorine gas into the surrounding air, as we have highlighted here, is but one example of the toxic industrial chemical threat.

In the event of exposure to a toxic chemical—and after the immediate danger and contamination have been dealt with—take the following steps:

1. Notify safety personnel.
2. Remove all sources of heat and ignition.
3. Keep all combustibles (wood, paper, oil, etc.) away from the leak.
4. Ventilate potentially explosive atmospheres.
5. Evacuate the spill area for at least 50 feet (15 m) in all directions.
6. Find and stop the leak if this can be done without risk.
7. Use water spray to reduce vapors; do not put water directly on the leak or spill area.

SPOTLIGHT: Chlorine Use

Symptoms—Chlorine causes the water in a person's body to turn to acid, which scars the lungs, causes fluid buildup, and induces a life-long asthmatic condition.

Treatment—Chlorine cannot be exhaled. If chlorine contacts the skin, individuals should flush the affected areas immediately with plenty of water, then wash with soap and water. Clothing contaminated with chlorine should be removed immediately.