

FACT SHEET

Sodium Hypochlorite (Bleach) Chemical Incompatibility



Before using bleach, check the chemical compatibility information on the safety data sheet(s) for the other chemical(s) or material(s) in the mixture.
Never add bleach to an unknown compound or solution.

Combine Bleach with...

Could Result In..

Acids and Acidic Compounds

- Release of **chlorine gas**

Ammonium Salts, Amines, Nitriles

- Release of **chloramine and hydrazine** vapors
- Formation of explosive compounds

Guanidinium Salts (found in buffers from many commercial kits)

- Release of toxic gases including chloramines, chlorine and hydrogen cyanide

Heat (e.g., from autoclaving)

- Release of chlorine gas

Hydrogen Peroxide

- Rapid and violent release of oxygen gas

Metals

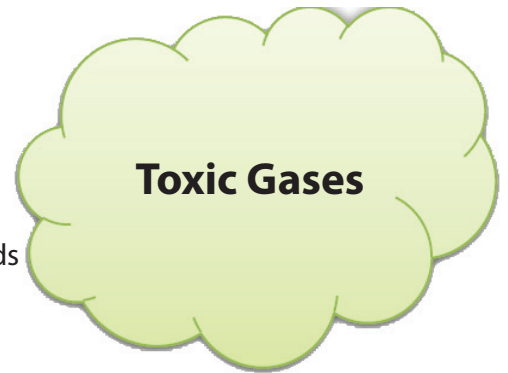
- Release of oxygen (over-pressurization of a closed system)

Organic Chemicals

- Formation of chlorinated organics
- Formation of explosive compounds
- Release of chlorine gas

Reducing Agents

- Production of heat (boiling or splashing)



Bleach is corrosive and can damage metal equipment. Wipe metal surfaces with water or 70% ethanol to remove bleach residues after disinfection.



After use, dilute bleach solutions that contain no other chemical hazards can be disposed down the drain with excess running water.

Adapted from UCLA EH&S Guidance



125 South Fort Douglas Blvd, Salt Lake City, UT 84113
801.581.6590 | oehs.utah.edu