

Cyanide

–Classification

Inorganic cyanides: NaCN, KCN, HCN etc. (very toxic)

Organic cyanides: Known as nitriles (less toxic)

–Dangers

Lethal doses: HCN (60–90 mg), KCN (200 mg)

Very toxic by inhalation, in contact with skin and if swallowed.

(MCN) Contact with acids liberates very toxic gas (HCN).

Target organs: central nervous system, cardiovascular system.

–Handling

PPE (goggles, gloves, lab coat, pants, closed-toe shoes)

Lab coat sleeves tucked into gloves or rubber-banded

Should prevent running the reaction under acidic conditions

Be super careful for large scale reactions

Wash thoroughly after handling. Remove contaminated clothing.

–Quenching

Put into special and labeled waste containers and give it to safety department.

Cyanide salts can be detoxified most efficiently with **hydrogen peroxide**.

–Antidote

Cyanide antidote kit (contains amyl nitrite, sodium nitrite and sodium thiosulfate)

