

Cyanide (CN⁻)

What is Cyanide?

Cyanide is a rapidly acting, potentially deadly chemical that can exist in various forms. Cyanide can be a colorless gas, such as hydrogen cyanide (HCN) or cyanogen chloride (CNCl), or a crystal form such as sodium cyanide (NaCN) or potassium cyanide (KCN).

Does Cyanide have any additional names?

No.

What are the known health effects?

Exposure to small amounts of cyanide can be deadly regardless of the route of exposure. The severity of the harmful effects depends in part on the form of cyanide, such as hydrogen cyanide gas or cyanide salts. Exposure to high levels of cyanide for a short time harms the brain and heart and can even cause coma and death.

How does exposure occur?

You may be exposed to cyanide by breathing air and drinking water, touching soil or water containing cyanide, or eating food that contain cyanide. Many plant materials, such as cassava roots, lima beans, and almonds, naturally contain low-to -moderate levels of cyanide.

The major sources of cyanide in water are discharges from some metal mining processes, organic chemical industries, iron and steel plants or manufacturers, and publicly owned wastewater treatment facilities. Other sources include vehicle exhaust, releases from certain chemical industries, burning of municipal waste, and use of cyanide-containing pesticides.

Is this contaminant regulated?

Yes, and water supplied to customers of Mount Laurel MUA is in compliance with USEPA and NJDEP requirements. The maximum concentration of Cyanide permitted in drinking water is 200 ppb; water supplied to MLTMUA customers has a detected a maximum level of 1.2 ppb.

How can I reduce exposure?

Since breathing it is likely to be the primary route of exposure to cyanide, leave the area where the cyanide gas was released and get to fresh air. Quickly moving to an area where fresh air is available is highly effective in reducing exposure to cyanide gas.

Cyanide can be removed from drinking water by reverse osmosis and ion exchange.

Additional information for Cyanide, including the information referenced, can be found at:

<https://www.atsdr.cdc.gov/toxguides/toxguide-8.pdf>

https://www.who.int/water_sanitation_health/dwq/cyanide.pdf