



CYANIDE COMPOUNDS

I. Protocol Overview

Cyanide, classified as a blood agent, is a rapidly acting, potentially deadly chemical that can exist in various forms. Cyanide can be a colorless gas, such as hydrogen cyanide (AC) or cyanogen chloride (CK); or as a crystal form such as sodium cyanide (NaCN) or potassium cyanide (KCN). Severe poisoning results in bradypnea, bradycardia, cardiovascular collapse, coma, and death. Exposure to lower levels may result in breathing difficulties, heart pains, vomiting, blood changes, headaches, and enlargement of the thyroid gland.

Inhalation of cyanide gas or ingestion of cyanide salts can lead to lethargy or coma, sudden collapse, dyspnea, tachypnea, tachycardia, and hypotension. Immediate medical attention is necessary in any suspected cyanide poisoning, as well as proper use of antidote kits. Cyanide poisoning is indicated with a concentration higher than the normal reference range (0.02 - 0.05 µg/mL) in whole blood.

For all suspected chemical exposures, consult the Poison Control Center (800-222-1222) located at Children's Hospital of Philadelphia. Information and treatment advice is available to the public and healthcare professionals at no charge.

Gas Chromatography Mass spectrometry (GC/MS) and ion selective probe (ISE) methods are used to detect the cyanide in blood, environmental, and food samples. Sample components are separated and then quantified using mass spectrometry analysis.

The Delaware Public Health Laboratory does not perform this testing. Contact the CDC or the Poison Control Center.

II. Contact Information

24/7 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

<http://emergency.cdc.gov/agent/cyanide/basics/facts.asp>