



LEWISITES

I. Protocol Overview

Lewisites (2-chlorovinylchloroarsine, O-ethyl S-(2-diisopropylaminoethyl)) are classified as vesicants or blister agents. Lewisite is an oily, colorless liquid in its pure form and can appear amber to black in its impure form. They are highly reactive chemicals with an odor like geraniums that cause blistering of the skin and mucous membranes on contact. Lewisites include three isomers with the designation L-1, L-2, L-3 and contain arsenic.

Signs and symptoms can be delayed by several hours after exposure and can include dermal (skin erythema and blistering with 30 minutes to 12 hours, deep skin burns), respiratory (pharyngitis, cough, dyspnea, edema frothing mucous), ocular (conjunctivitis and burns), neurological (restlessness, weakness, subnormal temperature, severe hypotension), gastrointestinal (nausea and vomiting), and profuse nasal secretions and violent sneezing.

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.

Mass spectrometry methods are used to detect the urinary, food, and environmental lewisites. Urinary lewisite metabolites are detected through the use of ion chromatograph inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC/MS). Samples are acidified and quantified via IC separation followed by elemental ICP-DRC/MS analysis. Environmental and food Samples/specimens are digested, acidified, and then analyzed for arsenic content using ICP-DRC/MS 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://www.atsdr.cdc.gov/MMG/MMG.asp?id=922&tid=190>

24/7 Emergency Contact Number: 302-223-1520

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