

Laboratory

SODIUM MONOCHLOROACETATE (MCA)

I. Protocol Overview

Sodium monochloroacetate (aka Chloroacetic acid, sodium salt) is a highly corrosive and toxic material used as an herbicide and defoliant. Signs and symptoms of poisoning appear immediately to several hours after exposure and include: shock, nausea, vomiting, loss of consciousness, metabolic acidosis, hypotension, dysrhythmias, seizures, coma, emphysema, chronic bronchitis, and finally cardiac and respiratory collapse, often mimicking an acute heart attack. There is no known effective antidote. Significant damage may occur to the central nervous system, heart, kidney, and liver due to aspiration or inhalation. Few animals or people have been treated successfully after significant ingestions.

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.

Detection of sodium monofluoroacetate is available in clinical and environmental samples. Mass spectrometry (MS) methods are used to detect MCA in urine, environmental, and food samples. Samples are extracted and MCA is quantified via liquid chromatography (LC) separation followed by isotopic dilution mass spectrometry analysis (LC/MS/MS).

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.cdc.gov/

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