BASF Chemical Emergency Medical Guidelines

Chloroacetyl chloride ($ClCH_2COCl$) D 1

Information and recommendations for patients

- **Patients exposed only to chloroacetyl chloride gas do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with liquid or solvents containing chloroacetyl chloride can secondarily contaminate rescue and medical personnel by direct contact or through off-gassing chloroacetyl chloride.**
- **Chloroacetyl chloride is a lacrimator and irritates the lungs severely. Because of its hydrolysis in the alveoli, serious lung effects and, therefore, symptoms of toxicity may be delayed up to 24 hours. Signs of accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration, cough) may appear after toxic exposures.**
- **There is no antidote to be administered to counteract the effects of chloroacetyl chloride. Treatment consists of supportive measures.**

Substance information

Chloroacetyl chloride ($ClCH_2COCl$), CAS 79-04-9
Synonyms: chloroacetic chloride, CAC
Chloroacetyl chloride is a colorless, water-white liquid at room temperature with a melting point of –22 °C and a boiling point of 106°C. It has a sharp and pungent odor. Chloroacetyl chloride is hydrolyzed slowly by moisture to form chloroacetic acid and hydrochloric acid.

Chloroacetyl chlorides are used as an intermediate in the manufacture of many chemicals including adrenalin, diazepam, chloroacetophenone, chloroacetate esters and chloroacetic anhydride.

What immediate health effects can result from exposure to chloroacetyl chloride?

Most exposures occur from breathing the gas or by skin/eye contact of the liquid. Exposure to small amounts usually causes skin, eye, nose, and throat irritation. **Irritating effects immediately after exposure might be severe and delayed pulmonary damage, primarily edema, may occur as late as 24 hours after exposure.** Chloroacetyl chloride poisoning may cause respiratory and cardiovascular failure.
Contact with chloroacetyl chloride gas can cause irritation and redness of the skin. High gas concentrations may cause tearing and conjunctival erythema of the eye. Eye contact with liquid chloroacetyl chloride may result in clouding of the eye surface and delayed perforation.

Are any future health effects likely to occur?

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. Some persons who have had serious exposures have developed permanent breathing difficulty and tend to develop lung infections easily.

Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

( ) Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
- coughing or wheezing
- difficulty breathing or shortness of breath
- increased pain or a discharge from exposed skin or eyes
- chest pain or tightness

( ) No follow-up appointment is necessary unless you develop any of the symptoms listed above.

( ) Call for an appointment with Dr. _____ in the practice of _____ When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in __ days.

( ) Return to the Emergency Department/_____ Clinic on (date) _____ at _____ am/pm for a follow-up examination.

( ) Do not perform vigorous physical activities for 1 to 2 days.

( ) You may resume everyday activities including driving and operating machinery.

( ) Do not return to work for __ days.

( ) You may return to work on a limited basis. See instructions below.

( ) Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.

( ) Avoid drinking alcoholic beverages; alcohol may worsen your clinical conditions.

( ) Avoid taking the following medications: _____
_____

( ) You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____
_____

( ) Other instructions: _____
_____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

References

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