

## EVACUATION OF CITIZENS AND PROVIDING FIRST AID TO AFFECTED PATIENTS IN THE EVENT OF MAN-MADE ACCIDENTS AT CHEMICAL PLANTS

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### ANNOTATION

To learn what color is produced when Cl<sub>2</sub>, NH<sub>3</sub>, Hydrozin and other toxic substances are produced, what shape and color cloud is formed, and where people should go when there is an accident in chemical industry technologies, i.e. during the production of Cl<sub>2</sub>, NH<sub>3</sub>, Hydrogen and other toxic substances.

**Keywords:** Accident, Chemical industry, Toxic substances, Cl<sub>2</sub>, Hydrogen, colors, CTEZM

**Purpose:** to evacuate citizens and provide first aid to affected patients in the event of man-made accidents at chemical plants

An accident is understood as a sudden stoppage of the work being performed, or a derailment of production in industrial enterprises, damage or loss of material assets in vehicles and other objects.

The following factors can cause accidents:

- Due to a natural disaster;
- Because it is allowed in the design of facilities or its construction;
- In case of improper use of transport mechanism, equipment;
- As a result of improper storage of aggressive substances (explosive, highly flammable toxic substances) and violation of the rules for its use;
- Violation of technical safety regulations, etc. Due to such errors, major accidents occur in production, as a result of which many people are injured and material assets disappear. Accidents often occur in chemical, oil processing, paper, meat and dairy, food, metallurgical, mining and other industrial enterprises. Accidents under the influence of particularly strong

toxic substances (KTEZM): chemical, oil processing paper, cellulose, meat and dairy, food industry, water treatment plants and railways. It is common in transportation. KTEZM has a strong impact on people, farm animals, and the environment when it exceeds the specified concentration and causes damage to various degrees. Ammonia, chlorine, sulfuric acid, hydrogen fluoride, nitrogen, sulfur oxides, etc., used in technological processes in the national economy, can be included among the KTEZM.

Today, the picture of the development of the countries of the world is growing faster and without repeating each other. All development and all efforts are made to satisfy human needs. As long as life goes on, human needs are inexhaustible. Therefore, the time demands renewal and production in large quantities. A large part of the production is occupied by the products produced in chemical industry enterprises. In some enterprises, large quantities of toxic substances that have a strong effect on humans can be stored in the production reserves of consumer goods. These enterprises are chemically dangerous objects. Accidents occur in enterprises due to natural disasters and man-made disturbances. As a result, strongly acting toxic substances fall into the external environment from stored containers, create foci of chemical secondary poisoning and cause sanitary losses among people.

Currently, chemical enterprises mainly use chlorine and ammonia. These substances that are being produced are dangerous as well as useful, especially chlorine.

Although chlorine is excluded from combat purposes, it is used as a raw material in manufacturing plants. For example: it is used in the production of chlorine amine to purify water from germs of infectious diseases. When exposed to the external environment, it creates a chlorine environment. Due to its density being greater than air, the earth spreads and gets into the hollows and cellars. Low and moderate amounts of chlorine gas irritate the eyes and cause pain. It causes a feeling of tightness and pain behind the sternum, a sore throat, tearing, a dry, painful cough, and a tightening of the vocal cords. Large amounts of chlorine gas can quickly cause swelling in the lungs. The process is like being poisoned with a binder. At an extremely high level, a person loses consciousness and dies due to cessation of breathing. People who have been poisoned by chlorine are advised to put on a gas mask and take them to a clean place as first aid.

In the event of man-made accidents with ammonia in chemical plants, in such cases, ammonia will rise into the air faster due to its lightness, but initially in a diluted state, ammonia will spread over the earth's surface for a certain distance. When ammonia spreads, it has a strong effect on the skin and mucous membranes of the eyes, as well as on the respiratory tract. When a large amount of ammonia touches the human body, it can cause burns, swelling and narrowing of the throat and bronchi, coughing, fluid accumulation in the lungs.

Ammonia tends to be more aggressive to the eyes than other alkalis. Even a low concentration causes eye irritation. Contact with high concentrations of the gas or concentrated ammonium hydroxide may cause swelling and itching of the surface cells of the eye, which may result in temporary or permanent blindness. Inadvertent ingestion of ammonia by young children often causes vomiting, abdominal pain, and ingestion of more concentrated ammonia can cause serious corrosive damage to the mouth, throat, esophagus, and stomach. In the event of an accident, it is necessary to take the poisoned people to a clean area as much as possible, remove

the contaminated clothes immediately, wash the affected areas with water and soap as much as possible.

When bathing children and the elderly, it is necessary to use hot baths to prevent hypothermia, and in case of contact with the eyes, wash them with water for at least 15 minutes.

In case of accidental ingestion of ammonia, vomiting should not be induced. In such cases, it is necessary to consume more water and milk, and move away from the poisoned area as quickly as possible against the wind. The reason is that the wind slows down the action of the powerful poison. This improves breathing and conditions for the next movement

Of course, in such emergency situations, the citizens of the accident site and the surrounding area are affected. CTEZMs mainly affect people through their respiratory organs and skin. They are divided into general poisoners and degenerates. If there is a mixture of several gases in the event of an accident, measures are taken to quickly evacuate people from the poisoned furnace using insulating anti-gases, restoration of the accident site is carried out. Organization of primary restoration work:

KTEZM is the wrapping (localization) of the spread area. Citizens participating in accident recovery work need to know themselves and others. They should always know how to take poisoned citizens out of the injured area, how to put on gas masks, give artificial respiration, massage the heart, and neutralize poisoned eyelids. For this, the team and personal protective equipment need to know their types and rules of use.

### **A tragic event and its consequences.**

A tragic event is a disaster that occurs within a certain period of time. Tragedy occurs with destruction of various structures, loss of material wealth and death of people.

For example, as a result of the accident at the Chernobyl Nuclear Power Plant that occurred on April 26, 1986, radioactive waste was spread into the environment. As a result, many people died, 200,000 people were completely relocated to safe places. The material damage caused by this tragedy amounted to 8 billion rubles. Therefore, every citizen who heard about an accident at NPPs should immediately hide in the community shelters or evacuate to a safe place immediately. He should put on personal protective equipment, take the necessary things: food, water, necessary documents, money and other items and quickly reach the evacuation points. If there are no conditions, the doors and windows in the house or office should be closed. It is known that brick houses reduce the level of radiation by 10 times. That is why radiation shelters are often built from reinforced concrete.

### **CONCLUSION**

Every medical and military cadets and students should be able to provide first aid, because explosions that can occur not only in chemical industries today, but also to patients who need first aid. must be able to provide first aid.

In conclusion, it should be noted that man is distinguished from other creatures by his consciousness, so we should forget about indifference and work towards the well-being of ourselves and our loved ones. for this

It is necessary to know the protective measures in various man-made situations. Toxic substances are used, stored and transported in the national economy sectors of our republic. As

a result of natural disasters, military conflicts, chemical toxic substances can spread into the atmosphere. As a result, it poisons the air in the environment.

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