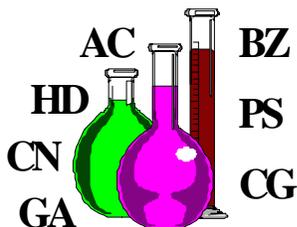


U.S. Army Center for Health Promotion and Preventive Medicine



*General Facts About Blister Agent Nitrogen Mustard
(HN-3)*

218-36-1096

General

HN-3 was the last of the nitrogen mustard agents developed. It was designed as a military agent and is the only one of the nitrogen mustards that is still used for military purposes. It is the principal representative of the nitrogen mustards because its vesicant properties are almost equal to those of HD.

Synonyms

Ethanamine;
2-chloro-N, N-bis(2-chloroethyl);
Triethylamine;
2-2', 2''-trichloro;
2, 2', 2''-trichlorotriethylamine;
2-Chloro-N, N-bis(2-chloroethyl)ethanamine;
Tris (beta-chloroethyl)amine;
AI3-16198;
HN3;
TS160.

Description

HN-3 is a vesicant. It also is the most stable in storage of the three nitrogen mustards. HN-3 is a colorless to pale yellow liquid with a butter almond odor.

Overexposure Effects

HN-3 is a cumulative poison which is highly irritating to the eyes and throat. Eye irritation, tearing, and photophobia develop immediately after exposure. The median incapacitating dose for eyes is 200 mg-min/m³. Blistering of the skin may occur after liquid exposure, severe or persistent exposure, or vapor condensation in sweat. Usually a rash will develop from liquid contamination within an hour, replaced by blistering between six and twelve hours after exposure. HN-3 interferes with hemoglobin functioning in the blood, hindering the production of new blood cells and destroying white blood cells.

Emergency and First Aid Procedures

Inhalation: remove from source immediately; give artificial respiration if breathing has stopped; administer oxygen if breathing is difficult; seek medical attention immediately.

Eye Contact: flush eyes immediately with water for 10-15 minutes, pulling eyelids apart with fingers and pouring water into eyes; do not cover eyes with bandages; protect eyes with dark or opaque goggles after flushing eyes; seek medical attention immediately.

Skin Contact: don respiratory mask and gloves; remove victim from source immediately and remove contaminated clothing; decontaminate the skin immediately by flushing with a 5 percent solution of liquid household bleach; wash off with soap and water after 3-4 minutes to remove decon agent and protect against erythema; seek medical attention immediately; to prevent systemic toxicity, decontaminate as late as 2 or 3 hours after exposure even if it increases the severity of the local reaction; further clean with soap and water.

Ingestion: do not induce vomiting; give victims milk to drink; seek medical attention immediately.

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