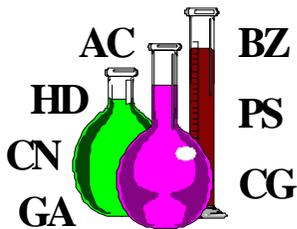


*U.S. Army Center for Health Promotion and Preventive Medicine*



*General Facts About Choking Agent Phosgene  
(CG)*

218-25-1096

**General**

CG, normally a chemical agent with a short duration, was used extensively in World War I. More than 80 percent of World War I chemical agent fatalities were caused by CG.

**Synonyms**

Carbonyl chloride;  
Carbon oxychloride;  
Carbon dichloride oxide;  
Carbon dichloride;  
Carbonic acid dichloride;  
Chloroformyl chloride.

**Description**

CG is a severe eye, mucous membrane, and skin irritant. It is highly toxic by inhalation. Two parts per million in air is immediately dangerous to life and health. Being a gas, it is primarily a toxic hazard by inhalation exposure. CG is foglike in its initial concentration but becomes colorless as it disperses. It has an odor of newly mown hay.

**Overexposure Effects**

Phosgene is a corrosive, highly toxic gas used as a delayed-casualty agent resulting in fluid buildup in the lungs (“dryland drowning”). It affects the upper respiratory tract, skin, and eyes and causes severe respiratory damage as well as burns to the skin and eyes. Acute inhalation may cause respiratory and circulatory failure with symptoms of chills, dizziness, thirst, burning of eyes, cough, viscous sputum, dyspnea, feeling of suffocation, tracheal rhonchi, burning in throat, vomiting, pain in chest, and cyanosis. CG is a severe mucous membrane irritant. Chronic inhalation may cause irreversible pulmonary changes resulting in emphysema and fibrosis. Acute skin contact may result in lesions similar to those of frostbite and burns; it is a severe skin irritant. Chronic skin contact may result in dermatitis. Acute eye contact may result in conjunctivitis, lacrimation, lesions similar to those of frostbite, and burns; chronic eye contact may result in conjunctivitis.

## *Emergency and First Aid Procedures*

Inhalation: remove victim to fresh air; keep individual calm and avoid any unnecessary exertion or movement; maintain airway and blood pressure; trained persons should administer oxygen if breathing is difficult; give artificial respiration if victim is not breathing; seek medical attention immediately.

Eye Contact: flush eyes immediately with running water or normal saline for at least 15 minutes; hold eyelids apart during irrigation; do not delay rinsing to avoid permanent eye injury; seek medical attention immediately.

Skin Contact: unlikely that emergency treatment will be required; gently wrap affected part in blankets if warm water is not available or practical to use; allow circulation to return naturally; if adverse effects occur, seek medical attention immediately.

Ingestion: treat symptomatically and supportively; if vomiting occurs, keep head lower than hips to prevent aspiration; seek medical attention immediately.

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