

Carbon oxychloride (phosgene)

Definition of causal agent

Carbon oxychloride is a colourless gas at ambient temperature and pressure with an odour of mouldy hay. The gas is heavier than air. It has a boiling point of 8.33° Celsius.

Main occupational uses and sources of exposure:

Carbon oxychloride is a widely used chemical intermediate, primarily in the preparation of a large number of organic chemicals. It is used in the synthesis of isocyanate-based polymers, carbonic acid esters and acid chlorides; and in the manufacture of dyestuffs, some insecticides and pharmaceuticals.

This gas is also generated when a volatile, chlorinated hydrocarbon compound has contact with flames or hot metal; thus it is a potential hazard for fire fighters, welders and dry cleaners.

Toxic or irritant effects

1. *Acute respiratory effects*

- respiratory tract irritation
- pulmonary oedema
- asphyxiation
- death

Delayed pulmonary oedema may develop after a (latent) period of up to 48 hours after exposure.

2. *Acute ocular*

- irritation and burning of the eyes

3. *Acute dermal*

- irritation and burning of the skin

Minimum intensity of exposure: 0.8 mg/m⁻³

Minimum duration of exposure: seconds

Maximum latent period: 48 hours