





PHOSGENE		ICSC: 0007 (October 2013)	
Carbonyl chloride Chloroformyl chloride		<a href="https://www.ilo.org/dyn/icsc/showcard.display?p_lang=en&amp;p_card_id=0007&amp;p_version=2">https://www.ilo.org/dyn/icsc/showcard.display?p_lang=en&amp;p_card_id=0007&amp;p_version=2</a>	
CAS #: 75-44-5			
UN #: 1076			
EC Number: 200-870-3			
ACUTE HAZARDS		PREVENTION	
<b>FIRE &amp; EXPLOSION</b>	Not combustible.		In case of fire in the surroundings, use appropriate extinguishing media. In case of fire: keep cylinder cool by spraying with water. NO direct contact with water. Combat fire from a sheltered position.
AVOID ALL CONTACT! FIRST AID: USE PERSONAL PROTECTION. IN ALL CASES CONSULT A DOCTOR!			
SYMPTOMS		PREVENTION	
<b>Inhalation</b>	Cough. Sore throat. Chest tightness. Shortness of breath. Nausea. Vomiting. Symptoms may be delayed. See Notes.	Use closed system or ventilation.	Fresh air, rest. Half-upright position. Administration of oxygen may be needed. Refer immediately for medical attention.
<b>Skin</b>	Redness. ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves. Protective clothing.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Rinse skin with plenty of water or shower. Refer immediately for medical attention.
<b>Eyes</b>	Redness. Watering of the eyes. ON CONTACT WITH LIQUID: FROSTBITE.	Wear face shield or eye protection in combination with breathing protection.	Rinse with plenty of water for several minutes (remove contact lenses if easily possible). Refer immediately for medical attention.
<b>Ingestion</b>			
SPILLAGE DISPOSAL		CLASSIFICATION & LABELLING	
Evacuate danger area! Consult an expert! Personal protection: chemical protection suit including self-contained breathing apparatus. Ventilation. Shut off cylinder if possible. Remove gas with fine water spray. Isolate the area until the gas has dispersed.		<p>According to UN GHS Criteria</p>  <p><b>DANGER</b></p> <p>Contains gas under pressure; may explode if heated            Fatal if inhaled            Causes serious eye irritation            May cause respiratory irritation            Causes damage to lungs            Causes damage to the lungs through prolonged or repeated exposure</p> <p><b>Transportation</b>  <b>UN Classification</b>            UN Hazard Class: 2.3; UN Subsidiary Risks: 8</p>	
STORAGE			
Fireproof if in building. Isolated from work area. Separated from incompatible materials. See Chemical Dangers. Cool. Dry. Ventilation along the floor.			
PACKAGING			
  <p>Prepared by an international group of experts on behalf of ILO and WHO, with the financial assistance of the European Commission. © ILO and WHO 2021</p>			

**PHOSGENE** **ICSC: 0007****PHYSICAL & CHEMICAL INFORMATION****Physical State; Appearance**

COLOURLESS COMPRESSED LIQUEFIED GAS WITH CHARACTERISTIC ODOUR.

**Physical dangers**

The gas is heavier than air.

**Chemical dangers**

Decomposes above 300°C. Decomposes on contact with water or moisture. This produces corrosive hydrogen chloride (see ICSC 0163). Reacts violently with ethanol, strong oxidants, ammonia, amines and aluminium. Attacks many metals in the presence of water.

Formula: COCl<sub>2</sub>

Molecular mass: 98.9

Boiling point: 8°C

Melting point: -128°C

Relative density (water = 1): 1.4

Solubility in water: reaction

Vapour pressure, kPa at 20°C: 161.6

Relative vapour density (air = 1): 3.4

**EXPOSURE & HEALTH EFFECTS****Routes of exposure**

The substance can be absorbed into the body by inhalation.

**Effects of short-term exposure**

Rapid evaporation of the liquid may cause frostbite. The substance is irritating to the eyes and respiratory tract. Inhalation of the gas may cause lung oedema and chemical pneumonitis. The effects may be delayed. Medical observation is indicated. See Notes. Exposure at high levels could cause death.

**Inhalation risk**

A harmful concentration of this gas in the air will be reached very quickly on loss of containment.

**Effects of long-term or repeated exposure**

Lungs may be affected by repeated or prolonged exposure. This may result in impaired functions and decreased resistance to infection.

**OCCUPATIONAL EXPOSURE LIMITS**

TLV: 0.1 ppm as TWA.

MAK: 0.41 mg/m<sup>3</sup>, 0.1 ppm; peak limitation category: I(2); pregnancy risk group: C.EU-OEL: 0.08 mg/m<sup>3</sup>, 0.02 ppm as TWA; 0.4 mg/m<sup>3</sup>, 0.1 ppm as STEL**ENVIRONMENT****NOTES**

A serious intoxication may develop even without experiencing symptoms of irritation or detecting the characteristic odour (grass or hay).

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential.

Do NOT spray water on a leaking cylinder (to prevent corrosion of the cylinder).

Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.

The information in this ICSC would also apply to phosgene generated by chemical reactions or by decomposition of organic compounds containing chlorine.

**ADDITIONAL INFORMATION****EC Classification**

Symbol: T+; R: 26-34; S: (1/2)-9-26-36/37/39-45; Note: U

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