

# PHOSGENE

0007

August 2002

**CAS No: 75-44-5**  
 RTECS No: SY5600000  
 UN No: 1076  
 EC No: 006-002-00-8

Carbonyl chloride  
 Chloroformyl chloride  
 (cylinder)  
 COCl<sub>2</sub>  
 Molecular mass: 98.9

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible.		In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>			In case of fire: cool cylinder by spraying with water but avoid contact of the substance with water. Combat fire from a sheltered position.
<b>EXPOSURE</b>		<b>AVOID ALL CONTACT!</b>	<b>IN ALL CASES CONSULT A DOCTOR!</b>
<b>Inhalation</b>	Burning sensation. Tightness in the chest. Cough. Laboured breathing. Shortness of breath. Symptoms may be delayed (see Notes).	Closed system and ventilation.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	Redness. Pain. ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	Remove contaminated clothes. ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Redness. Pain. Blurred vision.	Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>			

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Chemical protection suit including self-contained breathing apparatus. Remove gas with fine water spray. Do NOT let this chemical enter the environment.	<b>EU classification</b> T+ Symbol R: 26-34 S: (1/2-)9-26-36/37/39-45 Note: 5 <b>UN classification</b> UN Hazard Class: 2.3 UN Subsidiary Risks: 8

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-20S1076 NFPA Code: H4; F0; R1	Fireproof if in building. Isolated from work area. Separated from incompatible materials. See Chemical Dangers. Cool. Dry.

## IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS COMPRESSED LIQUEFIED GAS, WITH CHARACTERISTIC ODOUR.

**Physical dangers**

The vapour is heavier than air and may travel along the ground.

**Chemical dangers**

The substance decomposes on heating above 300/C, on contact with water and moisture, producing toxic and corrosive gases (carbon monoxide and hydrogen chloride). Reacts with aluminium, isopropyl alcohol.

**Occupational exposure limits**

TLV: 0.1 ppm as TWA; (ACGIH 2002).  
EU OEL: 0.02 ppm, 0.08 mg/m<sup>3</sup>, as TWA; 0.1 ppm, 0.4 mg/m<sup>3</sup>, as STEL; (EU 2002).

**Routes of exposure**

The substance can be absorbed into the body by inhalation.

**Inhalation risk**

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

**Effects of short-term exposure**

The substance is irritating to the eyes, the skin and the respiratory tract. Inhalation of this gas may cause lung oedema (see Notes). The effects may be delayed. Exposure at high levels may result in death. Medical observation is indicated.

## PHYSICAL PROPERTIES

Boiling point: 8/C  
Melting point: -118/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

## ENVIRONMENTAL DATA

## NOTES

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 is therefore essential.  
Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered.  
The odour warning when the exposure limit value is exceeded is insufficient.  
Do NOT spray water on leaking cylinder (to prevent corrosion of cylinder).  
Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.  
Card has been partially updated in January 2008: see Occupational Exposure Limits.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information