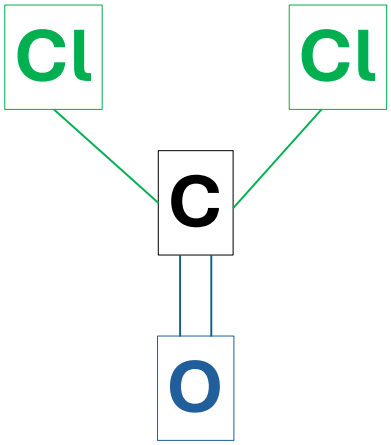
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Phosgene, Carbon oxychloride, Carbonyl dichloride, Chloroformyl chloride, 75-44-5
UN Number	1076
Chemical Formula	$COCl_2$
NFPA Hazard Class (H-F-R-Ⓞ)	4 – 0 – 1 -
Hazards	Toxic compressed gas capable of causing skin and eye damage
PPE Considerations	CPC or SFPC with SCBA based on assignment
Fire Fighting Considerations	Use an extinguishing agent suitable for the surrounding fire.
Decontamination	Water with surfactant or hybrid.
Detection and Monitoring	spectroscopy, colormetric, electrochemical sensor, PID (IP-11.55 eV)
Chemical and Physical Properties	
Physical State	Fuming liquid (<47°F) or colorless gas with odor like musty hay
Vapor Pressure	1.6 ATM
Boiling Point	47°F
Vapor Density	3.48
Specific Gravity	1.43
Miscibility/Solubility	Slightly soluble
Flash Point	-
LEL/UEL	- / - %
Autoignition Temp	-
pH	-
Toxicity	
IDLH	2 ppm
AEGL1/AEGL 2/AEGL 3 – 10 Min	- / - / -
Protective Action Criteria (PAC) 1/2/3	.027 / .3/ .75 ppm
Emergency Response Planning Guides (ERPG)	- / .5 / 1.5 ppm
PEL/REL/STEL	.1 / .1 / .1 ppm
LD50	-
LC50	3-5 ppm
Radioactive (Yes/No)	No
Medical	

Toxicological Considerations	Irritant to skin, eyes, and respiratory tract. Decomposes to HCl in contact with moisture
Signs/Symptoms of Exposure	Irritation or eyes, skin, mucosa, shortness of breath, coughing, wheezing, chest pain, foaming sputum, cyanosis
Medical Treatment	Fresh air, water flush, treat symptomatically

Other Information

When heated to decomposition or on contact with water or steam, it will react to produce toxic and corrosive fumes. Incompatible with moisture, alkalis, ammonia, and copper. Reacts in water to form hydrochloric acid and carbon dioxide.

Chemical Structure