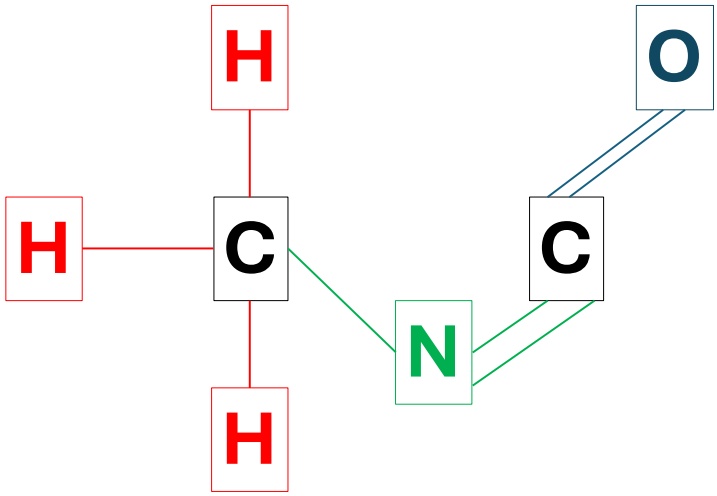
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Methyl Isocyanate, Methyl ester of isocyanic acid, MIC, 624-83-9
UN Number	2480
Chemical Formula	CH_3NCO
Hazards	Toxic by all routes, flammable liquid, respiratory hazard
PPE Considerations	CPC or SFPC with SCBA based on assignment
Fire Fighting Considerations	ATC AFFF, water fog - do not use smooth bore or straight stream, dry chem, dry sand, CO_2
Decontamination	Water, water with surfactant, hybrid, forced air for vapor exposure
Detection and Monitoring	Colormetric, PID IP = 10.67 ev, spectroscopy, combustible gas indicator/4-gas meter, chemical sensor
Chemical and Physical Properties	
Physical State	Colorless liquid with sharp, pungent odor
Vapor Pressure	348 mm/Hg
Boiling Point	102°F
Vapor Density	2
Specific Gravity	.96
Miscibility/Solubility	10%
Flash Point	19°F
LEL/UEL	5.3% / 26%
Autoignition Temp	995°F
pH	-
Toxicity	
IDLH	3 ppm
AEGL1/AEGL 2/AEGL 3 – 10 Min	NR / .4 / 1.2 ppm
Protective Action Criteria (PAC) 1/2/3	.025 / .067 / .2 ppm
PEL/REL/STEL	.02 / .02 /.02 ppm **OR** .05 / .05 / .05 mg/m^3
LD50	213 mg/kg (dermal) **OR** 55-340 mg/kg (oral)
LC50	5 mg/l
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Toxic by all routes
Signs/Symptoms of Exposure	Respiratory s/s, irritation/burning of skin/eyes/respiratory tract, pulmonary edema

Medical Treatment	Fresh air, water flush, treat symptomatically
Other Information	
Incompatible/reacts with water, oxidizers, acids, amines, iron, tin, copper	
Chemical Structure