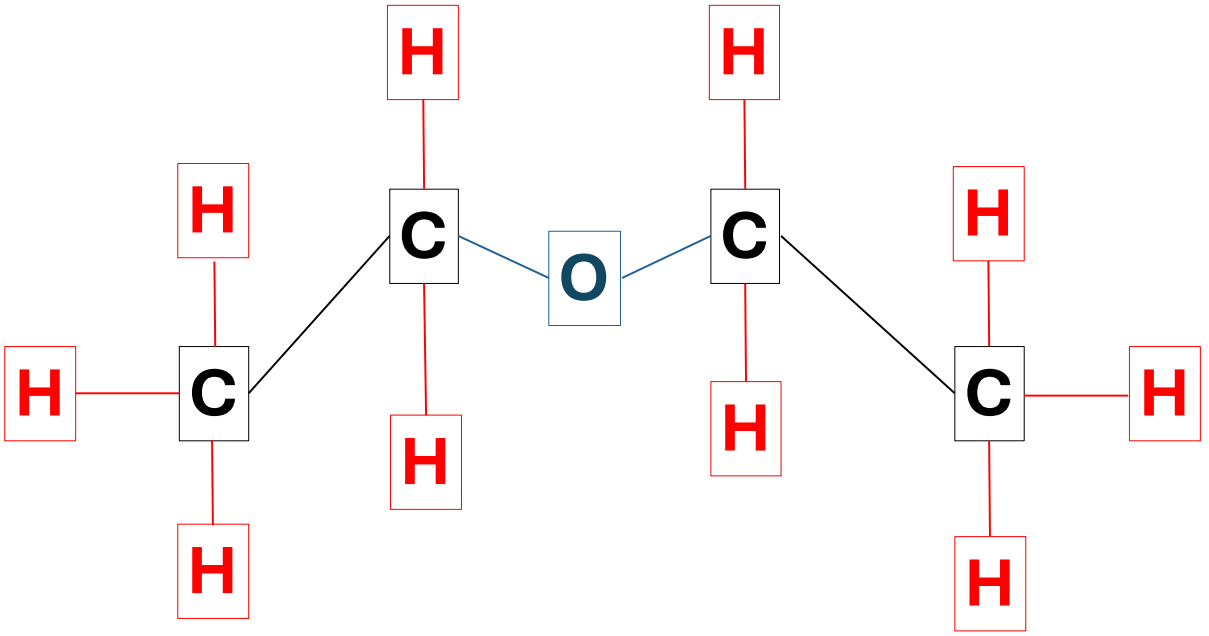
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Diethyl ether, Diethyl oxide, Ether, Solvent ether, Ethoxyethane, 60-29-7
UN Number	1155
Chemical Formula	$C_4H_{10}O$ $(C_2H_5)_2O$
Hazards	Flammable liquid with toxic properties
PPE Considerations	SFPC with SCBA
Fire Fighting Considerations	CO_2, dry chemical, ATC AFFF, dry sand
Decontamination	Ventilation, soap and water, water flush for skin contact
Detection and Monitoring	Colormetric, electrochemical sensor, PID IP = 9.53 ev, spectroscopy
Chemical and Physical Properties	
Physical State	Colorless liquid with sweet-ish odor
Vapor Pressure	~440 mmHg
Boiling Point	~94°F
Vapor Density	~2.5
Specific Gravity	~.7
Miscibility	Insoluble in water
Flash Point	-49°F
LEL/UEL	1.9% /36%
Autoignition Temp	356°F
pH	-
Toxicity	
IDLH	1900 ppm
PEL/REL/STEL	400 ppm/ - /500 ppm
LD50	~1200 mg/kg
LC50	~97.5mg/l
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Exposure by inhalation, ingestion, and contact
Signs/Symptoms of Exposure	Respiratory symptoms, skin and eye irritation, chest tightness, CNS, narcotic-like effects
Medical Treatment	Fresh air and treat symptomatically, flush areas of contact with copious amounts of water
Other Information	
Incompatible with oxidizers, halogens, sulfur compounds, tends to form explosive peroxides when exposed to air and light	

Chemical Structure