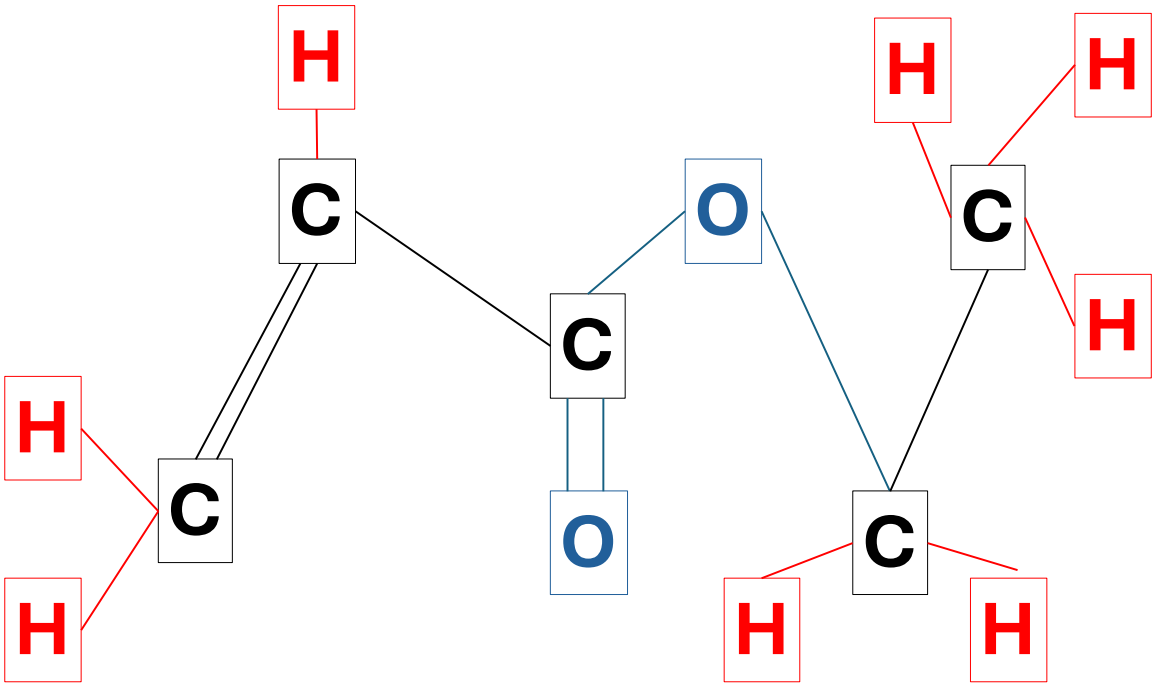
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Ethyl acrylate, 2-Propenoic acid, Acrylic acid ethyl ester, Ethyl propenoate
UN Number	1917
Chemical Formula	$C_5H_8O_2$
Hazards	Flammable, toxic, irritant, polymerization potential
NFPA Hazard Class (H-F-R-Ⓞ)	3– 3– 2–
PPE Considerations	SFPC or CPC with flash protection with SCBA, based on assignment
Fire Fighting Considerations	Water, CO_2, dry chemical, ATC AFFF
Decontamination	Water, water with surfactant, hybrid
Detection and Monitoring	Colorimetric, 4/5-gas meter, PID (IP = 10.3 eV), spectroscopy
Chemical and Physical Properties	
Physical State	Clear, colorless liquid with acrid odor
Vapor Pressure	29°F @ 68°F
Boiling Point	216°F
Vapor Density	3.45
Specific Gravity	.9
Miscibility	Partially soluble in water
Flash Point	48°F
LEL/UEL	1.8 / 12.1%
Autoignition Temp	721oF
pH	-
Toxicity	
IDLH	300
LC50	2,180 ppm
LD50	-
AEGL1/AEGL 2/AEGL (10 Min)	8.3 / 66 / 950 ppm
Emergency Response Planning Guide (ERPG) 1/2/3	.01 / 30 / 300 ppm
Protective Action Criteria (PAC) 1/2/3	8.3 / 36 / 240 ppm
PEL/REL/STEL	5 / - / - ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Irritating to respiratory tract, eyes and skin
Signs/Symptoms of Exposure	Irritation to eyes, reddening of the skin, shortness of breath, CNS

Medical Treatment	Fresh air, water flush, treat symptomatically.

Other Information

A flammable liquid & carcinogen. Reacts vigorously with oxidizing reagents, peroxides, strong alkalis and polymerization initiators. Reacts violently with chlorosulfonic acid. When exposed to sunlight, exothermic polymerization may occur. Inhibitors do not function in the absence of air. Incompatible with Cellulose-Based Absorbents, Mineral-Based & Clay-Based Absorbents, and Dirt/Earth

Chemical Structure