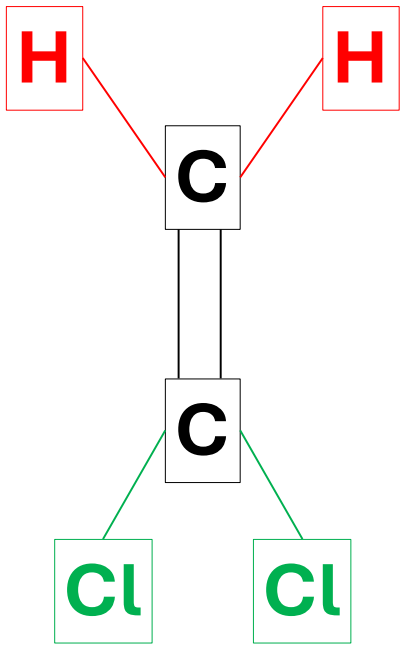
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Dichloroethene, 1, 1-DCE, 1, 1-Dichloroethene, 1, 1-Dichloromethylene, Vinylidene chloride monomer, Vinylidene dichloride
UN Number	1303
Chemical Formula	$CH_2=CCl_2$
Hazards	Toxic, flammable liquid, polymerization
NFPA Hazard Class (H-F-R-Ⓞ)	1 – 3 – 2 –
PPE Considerations	SFPC with SCBA
Fire Fighting Considerations	Water spray, CO_2, dry chemical, ATC AFFF. Water mist to cool containers.
Decontamination	Flushing water or water with surfactant
Detection and Monitoring	Colorimetric, spectroscopy, CGI, PID (IP=10.00 eV), electrochemical sensor
Chemical and Physical Properties	
Physical State	Colorless liquid or gas (above 89°F)
Vapor Pressure	5002 mm/Hg
Boiling Point	59°F
Vapor Density	3.25
Specific Gravity	1.21
Miscibility	.04%
Flash Point	-2°F
LEL/UEL	6.6 / 15.5%
Autoignition Temp	1058°F
pH	-
Toxicity	
IDLH	Ca (ND)
LC50	6350 ppm
LD50	200 mg/kg (oral)
AEGL1/AEGL 2/AEGL (10 Min)	140/ 500 / 850 ppm
Emergency Response Planning Guide (ERPG) 1/2/3	- / - / - ppm
Protective Action Criteria (PAC) 1/2/3	140 / 500 / 850 ppm
PEL/REL/STEL	- / Ca/ - ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Toxic by all routes
Signs/Symptoms of Exposure	Respiratory/skin/eye irritation, CNS s/s

Medical Treatment	Fresh air, water flush, treat symptomatically
Other Information	
Incompatible with aluminum, sunlight, air, copper, heat. May polymerize if exposed to oxidizers, chlorsulfuronic acid, nitric acid, oleum.	
Chemical Structure