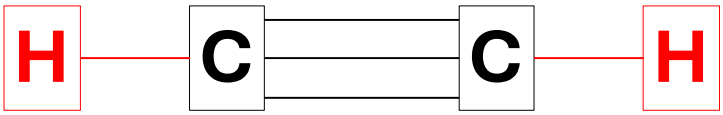
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Acetylene, Ethyne, Narcylene,
UN Number	1001
Chemical Formula	C_2H_2
Hazards	Extremely flammable compressed gas with polymerization potential
PPE Considerations	SFPC with SCBA
Fire Fighting Considerations	Cool tanks and use extinguishing agent appropriate for surrounding materials. Do **NOT** attempt to extinguish a leak unless the leak can be controlled.
Decontamination	Ventilation
Detection and Monitoring	CGI, PID IP = 11.4 ev, spectroscopy
Chemical and Physical Properties	
Physical State	Colorless gas with faint odor
Vapor Pressure	44+ ATM
Boiling Point	Sublimes
Vapor Density	.9
Specific Gravity	.6
Miscibility	1.2g/l (~2%)
Flash Point	-
LEL/UEL	2.5%/100%
Autoignition Temp	581°F
pH	-
Toxicity	
IDLH	-
AEGL1/AEGL 2/AEGL 3 – 10 Min	-/-/- ppm
Protective Action Criteria (PAC) 1/2/3	65,000/230,000/400,000 ppm Note: LEL = 25,000 ppm
PEL/REL/STEL	-/- /- ppm
LD50	-
LC50	-
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Asphyxiant hazard, frostbite hazard
Signs/Symptoms of Exposure	Respiratory s/s, CNS s/s, irritation/burning of skin/respiratory tract
Medical Treatment	Fresh air, water flush, treat symptomatically
Other Information	

Reacts with alkali metals, forming hydrogen gas, can react explosively with bromine, reacts with silver, copper and lead to form sensitive, explosive salts, its reaction with oxidants can be very violent, acetylene and ammonia can form explosive silver salts in contact with silver
Chemical Structure