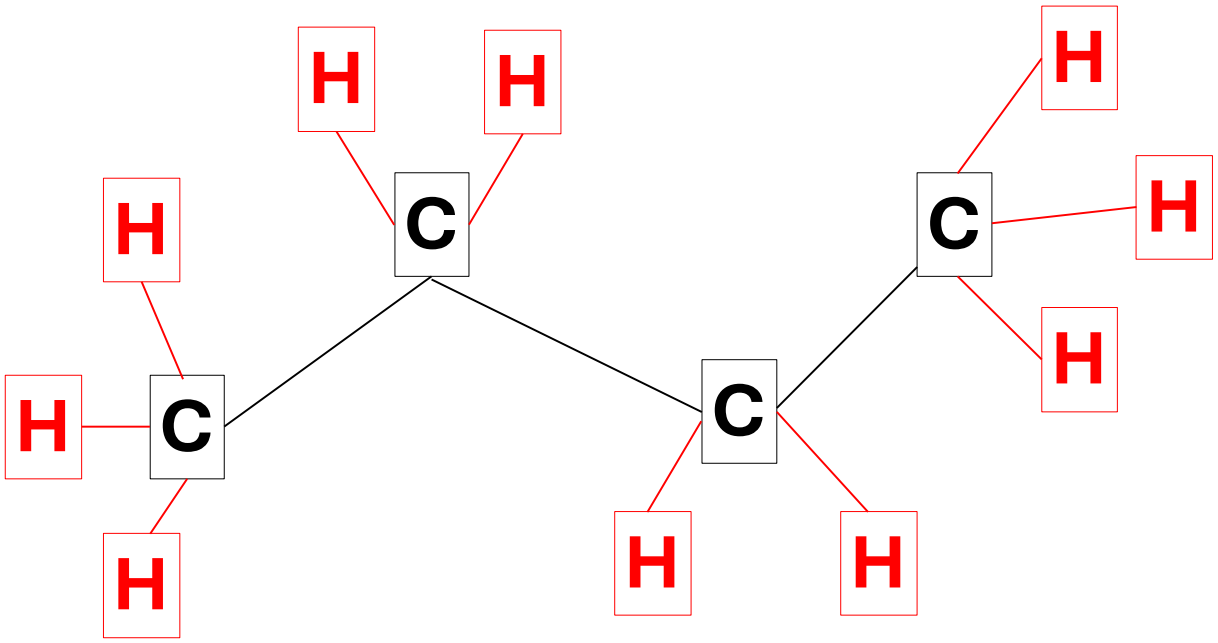
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	n-Butane, Normal butane, Butyl hydride, Diethyl, Methylethylmethane, Butane, 106-97-8
UN Number	1011 or 1075
Chemical Formula	$CH_3CH_2CH_2CH_3$
Hazards	Flammable, compressed gas with expansion ratio ~1:234
NFPA Hazard Class (H-F-R-Ⓞ)	1 – 4 – 0 –
PPE Considerations	SFPC with SCBA
Fire Fighting Considerations	Water to cool cylinder, dry chemical, CO_2. Do not extinguish fire unless leak can be stopped
Decontamination	Forced air, water with surfactant
Detection and Monitoring	Colormetric, spectroscopy, CGI, PID (IP=10.63 eV)
Chemical and Physical Properties	
Physical State	Shipped as liquified compressed gas
Vapor Pressure	2.05 ATM
Boiling Point	31°F
Vapor Density	2.11
Specific Gravity	.6
Miscibility	Slightly soluble
Flash Point	-
LEL/UEL	1.6% / 8.4%
Autoignition Temp	550°F
pH	-
Toxicity	
IDLH	1600 ppm (10% LEL)
LC50	658 g/m^3
LD50	-
AEGL1/AEGL 2/AEGL 3 – 10 Min	10000 / 24000 / 77000 ppm
Emergency Response Planning Guide (ERPG) 1/2/3	- / - / -
Protective Action Criteria (PAC) 1/2/3	5500 / 17000 / 53000 ppm
PEL/REL/STEL	- / 800 / 1000 ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Asphyxiant, frostbite potential, CNS depressant

Signs/Symptoms of Exposure	Asphyxia, frostbite, CNS s/s including dizziness, slurred speech, confusion
Medical Treatment	Fresh air, treat symptomatically
Other Information	
Incompatible with strong oxidizers (i.e. nitrate, perchlorates), chlorine, fluorine	
Chemical Structure