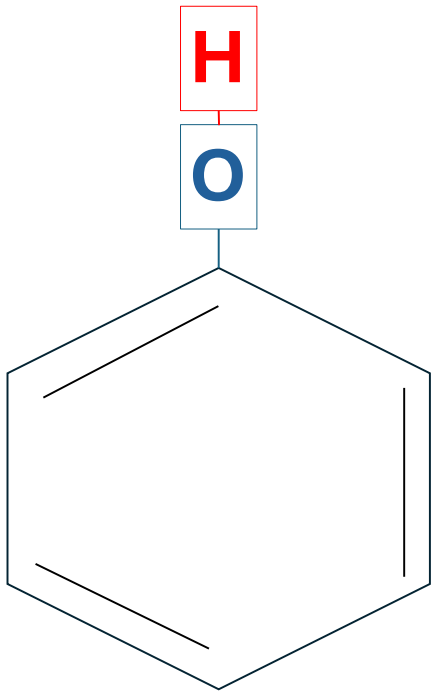
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Carbolic acid, Phenol, Hydroxybenzene, Phenyl alcohol, Phenyl hydroxide
UN Number	2821
Chemical Formula	C_6H_5OH
Hazards	Corrosive, toxic, combustible
NFPA Hazard Class (H-F-R-Ⓞ)	4 – 2 – 0 –
PPE Considerations	Splash protective CPC or SFPC with SCBA based on assignment
Fire Fighting Considerations	ATC AFFF, dry chemical, CO_2
Decontamination	Flushing water or water with surfactant
Detection and Monitoring	Colorimetric, spectroscopy, electrochemical sensor, CGI, PID (IP=8.5 eV)
Chemical and Physical Properties	
Physical State	Solid in pure form, but liquid in commercial form
Vapor Pressure	.4 mm/Hg
Boiling Point	359°F
Vapor Density	3.24
Specific Gravity	1.06
Miscibility	9%
Flash Point	176°F
LEL/UEL	1.8% / 8.6%
Autoignition Temp	1319°F
pH	~6
Toxicity	
IDLH	250 ppm
LC50	316 mg/m^3
LD50	669 mg/kg (skin) 270 mg/kg (oral)
AEGL1/AEGL 2/AEGL 3 – 10 Min	19 / 29 / - ppm
Emergency Response Planning Guide (ERPG) 1/2/3	10 / 50 / 200 ppm
Protective Action Criteria (PAC) 1/2/3	15 / 23 / 200 ppm (LEL =18000 ppm)
PEL/REL/STEL	5 / 5 / 5 ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Exposure by all routes
Signs/Symptoms of Exposure	Eye/skin/respiratory irritation, pain, CNS and muscular s/s

Medical Treatment	Fresh air, water flush, treat symptomatically
Other Information	
Incompatible with strong oxidizers, calcium hypochlorite, aluminum chloride, acids,	
Chemical Structure