

KSU – Chemical Engineering Department
ChE 418 (Chemical Plant Economics and Safety) – TUT #5 (Process Safety)

Name: _____

ID: _____

SN: _____

Use the following information provided in the below table to determine:

Species	Vol.%	LFL at 25 °C	UFL at 25 °C	ΔH_c (kcal/mol)
Methane (CH₄)	2%	5%	15%	213
Propane (C₃H₈)	3%	2.1%	9.5%	530
Hexane (C₆H₁₄)	3%	1.2%	7.5%	995

- i) The LOC for each component.
- ii) The LFL and UFL for the mixture at 25 °C and 1 atm and then indicate whether the mixture is flammable or not.
- iii) The LFL and UFL for the mixture at 100 °C and 1 atm and then indicate whether the mixture is flammable or not.