



Gas Properties - Natural Gas

Gas Name	Chemical Formula	Chemical Family
Natural Gas	CH ₄ + HC's	Alkane
Synonym(s)	Sweet Gas, Marsh Gas, Natural Gas, Methyl Hydride	

Molecular Weight	Critical Pressure (psia)	Critical Temperature (R)	Ratio of Specific Heats
18.910	670	382	1.288
Physical Characteristics		Solubility	
Colorless, Odorless, Tasteless (See Comments)		Slightly soluble in water. Soluble in alcohol and most petroleum products.	
Applications or Uses			
Fuel or Chemical use			
Hazards			
Flammable. Explosive. Asphyxiant. Lighter than air so collects in overhead pockets. Handle in well-ventilated areas.			
Material Requirements			
Standard materials of construction			
Lubrication			
Standard guidelines for lube or non-lube service.			
Comments			
Natural Gas mixtures vary dependent on the where and how it is produced. The mixture used for Physical Properties shown is a clean, dry, "sweet natural gas" with the following composition: 85% Methane, 10% Ethane, 3% Propane, 1% Butane, 0.5% Nitrogen and 0.5% CO ₂ . The information is to be used as a guideline. Special care must be taken to determine the presence of water, H ₂ S and debris.			
Residential (and some commercially applied) Natural Gas has an odorant added to aid in leak detection.			