Gas Properties - Ethylene

Gas Name	Chemical Formula	Chemical Family
Ethylene	C_2H_4	Alkenes, Aliphatic Hydrocarbons
Synonym(s)	Bicarburated Hydrogen, Acetene, Elayl, Etherin	

Molecular Weight	Critical Pressure (psia)	Critical Temperature (R)	Ratio of Specific Heats
28.050	748	509.5	1.255

Physical Characteristics	Solubility
Flammable, Colorless, Slightly sweet odor	Soluble in water and alcohol. Dilutes lube oil.

Applications or Uses

Manufacture of Ethylene Glycol. Plastics at higher pressures. Food Processing. Also used as an illuminant with other gasses for lighting. Generally used at relatively higher pressures. .

Hazards

Asphyxiant. Dispersible over a large area and does not dissipate into atmosphere. Long range ignition possible. Handle in well ventilated area.

Material Requirements

Non-corrosive. Standard materials apply.

Lubrication

Standard guidelines for lube or non-lube service. Has a tendency to dissolve into lube oil, thereby reducing oil viscosity.

Comments

No special problems with compression.

However, in the event ethylene oxide can be formed, extreme care is required. In certain cases, Ethylene Oxide and copper can combine to form Acetylene. If Ethylene Oxide is present, do not use yellow metals.