

Ethene



ethylene

Marking

CAS

Characterization acc. ADR

Cylinder Marking

74-85-1
UN 1962 ETHYLENE, 2.1,(B/D)



Shoulder color: red

Essential properties

liquified gas, lighter than air, colorless, flammable, narcotic

Symbols of risks



For additional safety information see safety data sheet *-C2H4-055A

Description

Colourless, highly flammable, liquified gas with slightly sweet odor. Forms explosive mixtures in air. Violent reactions with hydrogen bromide, hydrogen chloride, chlorine, nitrous oxide and nitrogen dioxide. Numerous reactions of addition or polymerisation due to the reactive double bond of the molecule.

Materials

Cylinders and Valves: any usual materials

Seals: PTFE, PCTFE, PVDF, PA, PP, IIR

Physical Properties			
molecular weight	28,054 kg/kmol	vapour pressure at 20 °C	
critical point		gas density at 0 °C and 1,013 bar	1,2611 kg/m ³
temperature	282,343 K	density ratio to air	0,9754
Pressure	50,404 bar	gas density at 15 °C and 1 bar	1,178 kg/m ³
density	0,215 kg/l	conversion factor	
triple point		liquid at Ts to m ³ gas (15 °C, 1 bar)	0,482
temperature	103,986 K	virial coefficient	
Pressure	0,0012 bar	Bn at 0 °C	-7,43*10 ⁻³ bar ⁻¹
boiling point		B30 at 30 °C	-5,39*10 ⁻³ bar ⁻¹
temperature	169,41 K, -100,4 °C	gaseous state at 25 °C and 1 bar	
liquid density	0,5679 kg/l	specific heat capacity cp	1,538 kJ/kg K
evaporation heat	482,6 kJ/kg	thermal conductivity	208-10 ⁻⁴ W/m K
		dynam. viscosity	10,4*10 ⁻⁶ Ns/m ²