

Marking

CAS

74-84-0
UN 1035 ETHANE, 2.1, (B/D)

Characterization acc. ADR

Cylinder Marking



Shoulder color: red

Essential properties

compressed gas, heavier than air, colorless, odorless, flammable

Symbols of risks**Physical Properties**

| | |
|-----------------------------------|--------------------------|
| molecular weight | 30,069 kg/kmol |
| gas density at 0 °C and 1,013 bar | 1,3551 kg/m ³ |
| density ratio to air | 1,0481 |
| vapour pressure at 20 °C | 37,64 bar |

For additional safety information see safety data sheet *-C2H6-051A

Valves / Manifolds

Valve connection

acc. to national regulations



Recommended Manifolds

Spectrolab control valve PN 40
Spectrolab FM 51 / FM 52exact

| Specification / receptacles | | | | |
|-------------------------------|---|------------|------------|--------|
| | | Ethane 2.5 | Ethane 3.5 | |
| Composition | | | | |
| C ₂ H ₆ | ≥ | 99.5 | 99.95 | Vol.-% |
| Impurities | | | | |
| CO ₂ | ≤ | - | 5 | ppmv |
| O ₂ | ≤ | 25 | 10 | ppmv |
| N ₂ | ≤ | 100 | 40 | ppmv |
| other HC | ≤ | 4,000 | 400 | ppmv |
| H ₂ O | ≤ | - | 5 | ppmv |
| Cylinder / Contents | | | | |
| F 10 3kg | | 3.0 | 3.0 | kg |
| F 50 15kg | | 15.0 | 15.0 | kg |

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Description

Colourless, odorless, narcotic, highly flammable, liquified gas. Forms explosive mixtures in air.

Materials

Cylinders and Valves: any usual materials

Seals: PTFE, PCTFE, PVDF, PA, PP, NBR, FKM

| Physical Properties | | | |
|-------------------------|-----------------------------|--|--|
| molecular weight | 30,069 kg/kmol | vapour pressure at 20°C | |
| critical point | | gas density at 0°C and 1,013 bar | 1,3551 kg/m ³ |
| temperature | 305,330 K | density ratio to air | 1,0481 |
| Pressure | 48,714 bar | gas density at 15°C and 1 bar | 1,2656 kg/m ₃ |
| density | 0,2045 kg/l | conversion factor | |
| triple point | | liquid at Ts to m ³ gas (15°C, 1 bar) | 0,43 |
| temperature | 90,348 K | virial coefficient | |
| Pressure | 1,1308*10 ⁻⁵ bar | Bn at 0°C | -9,88*10 ⁻³ bar ⁻¹ |
| boiling point | | B30 at 30°C | -7,18*10 ⁻³ bar ⁻¹ |
| temperature | 184,55 K; -88,6 °C | gaseous state at 25°C and 1 bar | |
| liquid density | 0,5441 kg/l | specific heat capacity cp | 1,757 kJ/kg K |
| evaporation heat | 488,5 kJ/kg | thermal conductivity | 212*10 ⁻⁴ W/m K |
| | | dynam. viscosity | 9,43*10 ⁻⁶ Ns/m ² |