

Marking**CAS****Characterization acc. ADR****Cylinder Marking**

7446-09-5
UN 1079 SULPHUR DIOXIDE,
2.3 (8),(C/D)



Shoulder color: yellow

Essential properties

liquified gas, heavier than air, colorless, pungent, corrosive, toxic

Symbols of risks

For additional safety information see safety data sheet *-SO2-113

Description

Colorless toxic liquified gas with stinging odor and sour taste. Highly hygroscopic. The aqueous solution reacts acidic (formation of sulphuric acid). Liquid sulphur dioxide is a relatively good solvent. Damp sulphur dioxide is highly corrosive. Acc. to ISO 10298: LC50/1h = 2520 ppm.

Materials

Cylinders and valves: all usual materials
With moisture strong corrosion on steel and stress corrosion cracking on brass possible.
Seals: PTFE, PCTFE, PVDF, PP, EPDM

Physical Properties			
molecular weight	64,059 kg/kmol	vapour pressure at 20 °C	
critical point		gas density at 0 °C and 1,013 bar	2,9285 kg/m ³
temperature	430,7 K	density ratio to air	2,2650
Pressure	78,839 bar	gas density at 15 °C and 1 bar	2,728 kg/m ³
density	0,525 kg/l	conversion factor	
triple point		liquid at Ts to m ³ gas (15 °C, 1 bar)	
temperature	197,63 K	virial coefficient	
Pressure	0,01675 bar	Bn at 0 °C	-24*10 ⁻³ bar ⁻¹
boiling point		B30 at 30 °C	-17*10 ⁻³ bar ⁻¹
temperature	263,13 K; -10,0 °C	gaseous state at 25 °C and 1 bar	
liquid density	1,458 kg/l	specific heat capacity cp	0,6224 kJ/kg K
evaporation heat	390 kJ/kg	thermal conductivity	99,4*10 ⁻⁴ W/m K
		dynam. viscosity	12,74*10 ⁻⁶ Ns/m ²