

**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****Physical Properties**

molecular weight	64,059 kg/kmol
gas density at 0 °C and 1,013 bar	2,9285 kg/m <sup>3</sup>
density ratio to air	2,2650
vapour pressure at 20 °C	3,305 bar

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

**Valves / Manifolds****Valve connection**

acc. to national regulations

**Recommended Manifolds**

Spectrocem FE 121 SP  
regulating valve PN 40



Specification / receptacles			
		Sulphur dioxide 3.8	
<b>Composition</b>			
SO <sub>2</sub>	≥	99.98	Vol.-%
<b>Impurities</b>			
SO <sub>3</sub>	≤	50	ppmv
residual	≤	100	ppmv
H <sub>2</sub> O	≤	30	ppmv
<b>Cylinder / Contents</b>			
F 10 12kg		12.0	kg
F 50 63kg		63.0	kg
Fass 1000l 1100kg		1,100.0	kg

**Remarks****Applications:**

Production of sulfuric acid

Preserving agent in food industries

- wine (antioxidant, antibiotic), also for disinfection of winery equipment
- dried fruit (preservative, antibiotic, keeps appearance)
- sugar (bleaching)

Delivery only with end user statement!

No delivery to private person!

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