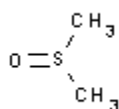


**PRODUCT CODE: 191954****Dimethyl Sulfoxide (USP, BP, Ph. Eur.) pharma grade**C<sub>2</sub>H<sub>6</sub>OS

M.= 78,13

CAS [67-68-5]

EINECS 200-664-3

TARIC 2930 90 98 99

**SYNONYMS:** DMSO, Methylsulphoxide, Sulphinylbismethane

**PHYSICAL DATA:** liquid, Clear, Colourless, Miscible with water and ethanol 96% Practically insoluble in acetone, alcohol, benzene, chloroform and ether. • Hygroscopic • D 20/4 1,1014 • M.P.: 18,4 °C • B.P.: 189 °C • n<sub>20</sub>/D : 1,477 • Ign. T.:270 °C • Vap. press. (20 °C) 0,6 hPa • Viscosity 20 °C 2 mPa.s • D. M. 20 °C 3,9 Debye • Dielec. constant 20 °C 4,7 •

**BIBLIOGRAPHY:** Merck Index **13**, 3.285 Sax **DUD800** • Safety **2**, **2440 C** • Kühn-Birett **D 36** • Ullmann **(5.)9**, 243 • Beilstein **1**, **289 II**, **277 III**, **1217 IV**, **1277** • BRN 506008 • Fieser 1296 2157 3119 4192 5263 6225 7133 8198 9189 10166 11214 12213 13124 • ACS **XI** • BP.**2021** • USP **42** • Ph. Eur. **9.0** (2017) **10.0** (2020) • Royal Decree **I811** •

**HAZARDOUS:** RTECS: PV 6210000 • LD50 oral rat 14.500 mg/kg • LD50 skn rat 40.000 mg/kg • LD50 ipr mus 2.500 mg/kg

**WEIGHT/VOLUME INFORMATION:** 1l-1,103 kg 1kg-0,907 l

**OBSERVATIONS:** Storage away from direct light. •

**SPECIFICATIONS:**

Minimum assay (G.C.)	99,9%
Identity :	
Identity according to Pharmacopoeias:	passes test
Identity	IR passes test
Density at 25/25	1,095-1,101
Density at 20/20	1,100-1,104

Freezing point	>= 18,3°C
Refractive Index n20/D	1,478-1,480
Refractive Index n25/D	1,4755-1,4775

### Maximum limit of impurities

Acidity	passes test
Non-volatile matter	0,01 %
Absorbance (UV): ABS 270 - 350 nm	passes test
No maximum absorption	
ABS at 275 nm	0,20
ABS at 285 nm	0,20
ABS at 295 nm	0,20
Relationship A285/A275	0,65
Relationship A295/A275	0,45
Related substances USP (G.C.)	0,1 %
Related substances Ph.Eur. (G.C.)	
Individual	0,10%
Total	0,15%
Substances darkened by KOH	passes test
Residual solvents (Ph.Eur/USP)	passes test
Dimethyl Sulfone (G.C.)	0,03%
Water (H2O)	0,1 %

### Elemental impurities (ICH Q3D):

Class 1	
Cd	0,5 ppm
Pb	0,5 ppm
As	1,5 ppm
Hg	1,5 ppm
Class 2A	
Co	2 ppm
V	10 ppm
Ni	10 ppm
Class 2B	
Tl	0,8 ppm
Au	10 ppm
Pd	10 ppm
Ir	10 ppm
Os	10 ppm
Rh	10 ppm
Ru	10 ppm
Se	15 ppm
Ag	15 ppm
Pt	10 ppm
Class 3	
Li	55 ppm
Sb	120 ppm
Ba	140 ppm
Mo	25 ppm
Cu	250 ppm
Sn	600 ppm
Cr	25 ppm

