Product Information	Physico-chemical properties of DMSO CAS : 67-68-5 EINECS : 200-664-3

With its high polarity combined with a high dielectric constant, dimethylsulfoxide (DMSO) is an excellent solvent for polar or polarizable organic compounds, but also for many acids, alkalis and mineral salts.

Furthermore, DMSO has a high flash point, shows low toxicological - ecotoxicological profiles and is biodegradable : dimethylsulfoxide is a non-labelled chemical.

Involved in synthesis and formulation applications ? Use DMSO !

Physical properties	**Molecular Weight (g/mol)**	**78.13**
	Boiling point (°C, 760 mmHg)	**189**
	Freezing point (°C)	**18.5**
	Specific gravity (20/4)	**1.1**
	Autoignition temperature (°C)	**300-302**
	Refractive index (25°C)	**1.478**
	Cubic expansion coef. ($°C^{-1}$)	**$9{,}28.10^{-4}$**
	Absolute Viscosity (cP, 20°C)	**2.14**
	Surface tension (dyne/cm, 20°C)	**43.0**
	Flammability limits in air (v/v)	**2.6% 28.5%**
	pKa	**33**
	Relative density/air	**2.7**
	Flash point (°C closed cup)	**87**
Aqueous effluents	**Solubility in water (wt/wt, 25°C)**	**Miscible**
	Log_{10} partition in octanol/water	**-1.35**
Vapor pressure	**Henry's constant $Pa.m^3/mole$**	**$7{,}84.10^{-4}$**
	Vapor pressure (mmHg, 20°C)	**0.55**
Solvent properties	**Dielectric constant 20°C**	**48.9**
	Dipole moment (Debye, 25°C)	**4.3**
	Conductivity ($ohm^{-1}m^{-1}$, 20°C)	**3.10^{-6}**
	Hansen parameters	**$Mpa^{1/2}$**
	Hansen polarity parameter	**18.4**
	Hansen dispersion parameter	**16.4**
	Hansen hydrogen parameter	**10.2**
	Hildebrand parameter	**26.7**
	Kauri butanol value (ASTM D1133-78)	**164**
Thermodynamics	**Heat capacity,($J\ K^{-1}\ mol^{-1}$)**	**153..27**
	Heat of combustion (KJ/mol, 25 °C)	**-1977.7**
	Heat of fusion (KJ/mol)	**14.352**
	Heat of vaporization ((KJ/mol, 25 °C)	**52.26**
	Heat of formation (KJ/mol, 25 °C)	**-203.89**
	Molar volume (cm^3/mol)	**71.3**