

Data Sheet

SENTINEL ACETONE

Product Grade: 2-propanone
Specification Reference AC/6 (02/10)

Sales Specifications

Property	Units	Value	Test
Acetone content Density	%mass kg/1@20°C	99.5 min 0.790 min - 0.792 max	D3505
Water Content	% mass	0.3 max	D1364
Acidity	% mass as acetic acid (fixed)	0.002 max	BS 509
Appearance Non-Volatile Matter	%	Clear colourless liquid 0.001 max	Visual D1353
Colour	Pt/Co Scale	5 max	D1209
Distillation range (inc. Bp 56.2°C)	°C	1 max	D1078
Alcoholic Impurities		Complies with BS limit test	BS 509 (part 2) :1984
Alkalinity (calculated as Ammonia) Permanganate time	hours	Complies with BS limit test 2 minimum	D1614 D1363

Physical Properties

Property	Conditions	Unit	Value
Molecular mass			58.06
Density	20 °C	kg/litre (vacuo)	0.790
Relative Density	20 °C/ 20 °C		0.7911
Coefficient of Cubical expansion	per °C		1.487 x 10 ⁻³
Change in Relative Density	per °C		1.14 x 10 ⁻³
Melting Point		°C	-94.7
Boiling Point	1.013 bar	°C	58.2
Change in boiling point	1013 bar	°C/mbar	0.0293
vapour pressure	20 °C	mbar	247
Flammable limits upper lower	20 °C 20 °C	%volume %volume	13.0 2.6
Flash Point	Abel closed up	°C	-18
Auto ignition temperature		°C	465
Specific heat (liquid) Specific heat (vapour)	20 °C 20 °C	kJ/kg °C kJ/kg °C	2.18 1.28
Latent heat (of fusion) (of vaporisation)	at boiling point	kJ/kg °C kJ/kg °C	97.97 501.15
Heat of combustion	20 °C	Mj/kg	30.86
Critical Temperature		°C	235.0
Critical Pressure		bar	47
Volume Resistivity	25 °C	ohm.m	4.2 x 10 ⁷
Thermal conductivity	20 °C	mW/m °C	150
Dielectric constant	20 °C		21
Refractive index	20 °C	n ²⁰ _D	1.3591
Absolute Viscosity	20 °C	cP	0.322
Evaporation rate Relative to n-BuAc=1	21.5 °C		18.11