



**AROMANTIC**  
Natural Skin Care

## Specifications and Product Information

### Isopropyl Alcohol ( $\leq 100\%$ )

Product Category:	Alcohols
CAS Registry Number:	67-63-0
EINECS Number:	200-661-7
Synonym(s):	2-propanol, IPA
Description:	Isopropyl alcohol (IPA) is a solvent for epoxy and acrylic resins. Ethyl cellulose, polyvinyl butyral, alkaloids, gums, shellac, natural resins, and many essential oils. It functions as a latent solvent in solvent systems for nitrocellulose. It is a medium evaporating solvent and is completely miscible with most solvents.

### Typical Properties

Property	Unit	Min	Max	Method
Purity	%m/m	99.8		DIN 55685
Water	%m/m		0.1	ASTM D1364
Acidity (as Acetic Acid)	%m/m		0.001	ASTM D1613
Appearance	Clear and free from suspended matter			ASTM D4176
Colour	Pt-Co		5	ASTM D1209 (4)
Density at 20°C	g/ml	0.785	0.786	ASTM D4052 (4)
Refractive Index @20°C		1.376	1.378	ASTM D1218 (4)
Non Volatile Matter	g/100mL		0.001	ASTM D1353
Distillation, IBP	°C	81.8		ASTM D1078 (4)
Distillation, DP	°C		82.8	ASTM D1078 (4)
Water Miscibility		Miscible		ASTM D1722

(4) Agreed Specification limits - no results: Statistical average value reported

Product as produced complies with ASTM D770, DIN 53245 and ACS 8th edition. Product meets guaranteed limits but are not routinely tested.

Property	Unit	Method	Value
Purity	% m/m	DIN 55685	min. 99.8
Water	% m/m	ASTM D1364	0.05
Density @20°C	kg/L	ASTM D4052	0.785
Cubic Expansion			
Coefficient @20°C	(10 <sup>-4</sup> )/°C	Calculated	11
Refractive Index @20°C	-	ASTM D1218	1.378

Colour	Pt-Co	ASTM D1209	< 5
Boiling Point	°C	-	82
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	1.5
Relative Evaporation Rate (Ether=1)	-	DIN 53170	11
Antoine Constant A #	kPa, °C	-	6.86618
Antoine Constant B #	kPa, °C	-	1360.13
Antoine Constant C #	kPa, °C	-	197.592
Antoine Constants:			
Temperature range	°C	-	-10 to +90
Vapor Pressure @20°C	kPa	Calculated	4.1
Vapor Pressure @50°C	kPa	Calculated	24
Saturated Vapor			
Concentration @20°C	g/m <sup>3</sup>	Calculated	102
Flash Point	°C	IP 170	12
Auto Ignition Temperature	°C	ASTM E659	425
Explosion Limit: Lower	%v/v	-	2.0
Explosion Limit: Upper	%v/v	-	12
Electrical Conductivity			
@20°C	µS/m	ASTM D4308	6
Dielectric Constant @20°C	-	-	18.6
Freezing Point	°C	-	-88
Surface Tension @20°C	mN/m	ASTM D971	23
Viscosity @20°C	mPa.s	ASTM D445	2.4
Hildebrand Solubility			
Parameter	(cal/cm <sup>3</sup> ) <sup>1/2</sup>	-	11.5
Hydrogen Bonding Index	-	-	-16.7
Fractional Polarity	-	-	0.178
Heat of Vaporization			
@Tboil	kJ/kg	-	664
Heat of Combustion			
(Net) @25°C	kJ/kg	-	31000
Specific Heat @20°C	kJ/kg/°C	-	2.6
Thermal Conductivity			
@20°C	W/m/°C	-	0.14
Miscibility @20°C:			
Solvent in Water	% m/m	-	Complete
Miscibility @20°C:			
Water in Solvent	% m/m	-	Complete
Azeotrope with Water:			
Boiling Point	°C	-	80.3
Azeotrope with Water:			
Solvent Content	% m/m	-	87.4
Molecular Weight	g/mol	-	60

(#) In the Antoine temperature range, the vapor pressure P (kPa) at temperature T (°C) can be calculated by means of the Antoine equation:  $\log P = A - B/(T+C)$

### Test Methods

Copies of copyrighted test methods can be obtained from the issuing organisations:  
American Society for Testing and Materials (ASTM): [www.astm.org](http://www.astm.org) Energy Institute (IP):  
[www.energyinst.org.uk](http://www.energyinst.org.uk) Deutsches Institut für Normung (DIN): [www.din.de](http://www.din.de)

**N.B:** For routine quality control local test methods may be applied that are different from those mentioned in this datasheet.

### Storage Handling

Provided proper storage and handling precautions are taken we would expect Isopropyl Alcohol Cosmetic to be technically stable for at least 12 months.