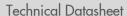
Shell Chemicals





Isopropyl Alcohol-USP

Product Code \$1144

Region North America

Product Category Alcohols

CAS Registry Number 67-63-0

Synonym(s) 2-propanol, IPA-USP

Description Isopropyl alcohol-USP (IPA-USP) is a water-clear mobile liquid with a

mild (alcohol) odor. It is produced and handled through loading to comply with e.g. current Good Manufacturing Practices according to USP General Chapter <<1078>> and the US Pharmacopoeia /

National Formulary Monographs in effect.

Typical Properties

Property	Unit	Method	Value
Purity, min.	%m/m	GC	99.8
Water	%m/m	ASTM D1364	0.03
Acidity (as Acetic Acid)	%m/m	ASTM D1613	0.001
Density at 20°C	kg/l	ASTM D4052	0.785
Specific Gravity at 20°C/20°C	-	ASTM D4052	0.786
Specific Gravity at 25°C/25°C	-	ASTM D4052	0.783
Coefficient of Cubic Expansion at 20°C	10 ⁻⁴ /°C	Calculated	11
Refractive Index at 20°C	-	ASTM D1218	1.377
Color	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
Temperature Limits for Antoine Equation #	°C	-	-10 to +90

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kPa	Calculated	4.1
kPa	Calculated	24
g/m³	Calculated	102
g/l	EU / EPA	785
°C	IP 170	12
°C	ASTM E659	425
%v/v	-	2.0
%v/v	-	12
pS/m	ASTM D4308	6*10 ⁶
-	-	18.6
°C	-	-88
mN/m	-	23
mPa.s	-	2.4
$(cal/cm^3)^{1/2}$	-	11.5
-	-	-16.7
-	-	0.178
kJ/kg	-	664
kJ/kg	-	31000
kJ/kg/°C	-	2.56
W/m/°C	-	0.14
%m/m	-	complete
%m/m	-	complete
°C	-	80.3
0/ /		07.4
%m/m	-	87.4
	kPa g/m³ g/l °C °C °C %v/v %v/v pS/m - °C mN/m mPa.s (cal/cm³)¹¹/² kJ/kg kJ/kg kJ/kg/°C W/m/°C %m/m %m/m %m/m	kPa Calculated g/I EU / EPA °C IP 170 °C ASTM E659 %v/v - %v/v - pS/m ASTM D4308 - - °C - mN/m - mPa.s - (cal/cm³) ^{1/2} - - - kJ/kg - kJ/kg - kJ/kg/°C - W/m/°C - %m/m - %m/m - °C -

(#) 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

Energy Institute (IP) : www.energyinst.org.uk

N.B: For routine quality control local test methods may be applied. Such methods have been validated against those mentioned in this datasheet.

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Quality

Isopropyl Alcohol-USP can be supplied to meet the requirements of ASTM D770, DIN 53245, FED MIL Spec TT-I-735A, European Pharmacopoeia, and ACS 10th Edition Reagent Grade (General Use). Isopropyl Alcohol-USP does not contain detectable quantities of polycyclic aromatics, heavy metals or chlorinated compounds.

Hazard Information

For detailed Hazard Information please refer to the Safety Data Sheet on www.shell.com/chemicals.

Storage Handling

Provided proper storage and handling precautions are taken we would expect Isopropyl Alcohol-USP to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet on www.shell.com/chemicals.

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