



## Product Specification

Product Name:	ISO PROPYL ALCOHOL IP
DC No.	QA/FP/SPE/IPA/04
CAS No:	67-63-0
Chemical formula	C <sub>3</sub> H <sub>8</sub> O
Mol. Wt.	60.1
Issue Date	20/12/2021
Version	2.4

S. No.	Characteristics	UOM	Specification
1	Description	-	A Clear colourless liquid .
2	Solubility	-	Miscible with water, with chloroform, and with ether
3	Identification A- Relative density at 20°C	g.	0.785 to 0.789
	Identification B- Refractive index at 20°C	-	1.376 to 1.379
	Identification C- Infrared absorption spectrophotometer	-	IR spectrum of sample exhibits maxima at the same wavelength as that of a similar preparation of IPA ref.std.or working std
	Identification D-	-	To 1 ml,add 4 ml of water and mix carefully add 2 ml of 1%w/v solution of dimethylaminobenzaldehyde in sulphuric acid, ensure that liquid do not mix; a bright reddish-violet ring forms immediately at the junction of 2 liquids. After 2 to 5 minutes, the entire
4	Appearance of solution	-	Isopropyl alcohol is clear and colourless. A 5 % v/v solution of Isopropyl alcohol in water remains clear after 5 minutes.
5	Acidity or Alkalinity	ml	NMT 0.6 ml of 0.01 M Sodium Hydroxide is required to change the colour of the solution to pale pink.
6	Absorbance , maximum	-	At 230 nm is 0.30 - At 250 nm is 0.10 - At 270 nm is 0.03 - At 290 nm is 0.02 - At 310 nm is 0.01
7	Refractive index at 20°C	-	1.376 to 1.379
8	Relative density at 20°C	g.	0.785 to 0.789
9	Peroxides		No colouration is produced after 30 minutes



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 CAS No: 67-63-0  
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 Mol. Wt. 60.1  
 Issue Date 20/12/2021

10	Benzene and related substance	-	Test solution (a) not more than 0.5 times the area of the corresponding peak in the chromatogram obtained with reference solution (b) ( $\leq 2$ ppm)
		%v/v	Total impurities apart from 2-Butanol NMT 0.3
11	Non volatile substances	ppm	NMT 20
12	Water	%w/w	NMT 0.5
13	Assay	%v/v	NLT 99.0
Inhouse test			
1	Residual Solvents	%w/w	1-Propanol NMT 0.1%
		%w/w	Cyclohexane NMT 0.005%

**Reference:** Indian Pharmacopeia

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 NMT Not more than  
 NLT Not less than  
 v/v volume by volume



## Product Specification

Product Name: ISO PROPYL ALCOHOL USP  
 DC No. QA/FP/SPE/IPA/02  
 CAS No: 67-63-0  
 Chemical formula C3H8O  
 Mol. 60.1  
 Issue Date 20/12/2021  
 Version 2.4

S. No.	Characteristics	UOM	Specification
1	Definition	-	Isopropyl Alcohol contains NLT 99.0% of isopropyl alcohol (C3H8O)
2	Identification		
	A .Spectroscopic Identification Test, Infrared spectroscopy	-	IR spectrum of the sample exhibits maxima at the same wavelength as that of a similar preparation of USP IPA resistor working std
	B by GC	-	The retention time of major peak of the sample solution corresponds to the 2-propanol peak of the system suitability solution, as obtained in the Assay.
	C .Limit of methanol	%v/v	Methanol NMT 0.02 ( 200 ppm )
3	Assay	%w/w	NLT 99.0
4	Limit of volatile impurities	%v/v	i) Ethyl acetate-NMT 0.1 % ii) Acetone-NMT 0.1 % iii) Di isopropyl ether-NMT 0.1 % iv) 1-Propanol-NMT 0.1 % v) 2-Butanol-NMT 0.1 % vi) Total impurity - NMT 1.0 %
5	Limit of nonvolatile residue ,	%w/v	NMT 0.005 (2.5 mg)
6	Specific gravity at 25 °C	-	0.783 to 0.787



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 DC No. QA/FP/SPE/IPA/02  
 CAS No: 67-63-0  
 Chemical formula C<sub>3</sub>H<sub>8</sub>O  
 Mol. 60.1  
 Issue Date 20/12/2021  
 Version 2.4

S. No.	Characteristics	UOM	Specification
7	Refractive index at 20 °c.	-	1.376 to 1.378
8	Acidity ,	ml	NMT 0.70 ml of 0.02 N Sodium Hydroxide (required for neutralization of 50 ml sample)
9	Water Determination ,	%w/w	NMT 0.5 ( 5.0 g. sample)
10	Description	-	Clear colourless liquid with characteristic odour
11	Solubility	-	Miscible with purified water, Ether, Alcohol and Chloroform.
1	In House test Residual solvent	%w/w	1-Propanol NMT 0.1% Cyclohexane NMT 0.005%

**Reference:** USP Pharmacopeia

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 NMT Not more than  
 NLT Not less than



## Product Specification

Product Name:	ISO PROPYL ALCOHOL BP/Ph.Eur.
DC No.	QA/FP/SPE/IPA/03
CAS No:	67-63-0
Chemical formula	C <sub>3</sub> H <sub>8</sub> O
Mol. Wt.	60.1
Issue Date	20/12/2021
Version	2.3

S. No.	Characteristics	UOM	Specification
1	Appearance	-	Clear colourless liquid .
2	Solubility	-	Miscible with water and with ethanol (96%) .
3	Identification - A	-	Relative density is between 0.785 to 0.789
4	Identification - B	-	Refractive index is between 1.376 to 1.379
5	Identification - C	-	IR spectrum of sample exhibits maxima at the same wavelength as that of a similar preparation of IPA ref.std.or working std
6	Identification - D	-	To1 ml add 4 ml of water and mix.Carefully add 2 ml of 10 g/l sol.of dimethylaminobenzaldehyde in sulphuric acid ensuring that the liq do not mix;a bright reddish-violet ring forms immediately at the junction of the 2 liq.After 2-5 mins,the entire sulphuric acid layers turns violet
7	Appearance	-	The substance to be examined is clear and colourless.Sample in water (1:20) is clear after 5 minutes.
8	Acidity or Alkalinity	ml	NMT 0.6 ml of 0.01 M Sodium Hydroxide is required to change the colour of the indicator to pale pink.
9	Absorbance , maximum	-	At 230 nm is 0.30
		-	At 250 nm is 0.10
		-	At 270 nm is 0.03
		-	At 290 nm is 0.02



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Mol. Wt.	60.1
Issue Date	20/12/2021
Version	2.3

		-	At 310 nm is 0.01
10	Benzene and related substances		Test solution (a) not more than 0.5 times the area of the corresponding peak in the chromatogram obtained with reference solution (b) ( $\leq 2$ ppm)
		%v/v	Total impurities apart from 2-Butanol NMT 0.3
11	Peroxides	-	No colour develops .
12	Non- volatile substances , maximum	mg	2 (20 ppm)
13	Water , maximum	%w/w	0.5

**Reference:** British /Ph . Eur Pharmacopeia

DC No.	Document Control Number
FP	Finish Product
UOM	Unit of measurement
w/w	Weight by weight
NMT	Not more than



## Product Specification

Product Name:	ISO PROPYL ALCOHOL IP/BP/Ph.Eur /USP
DC No.	QA/FP/SPE/IPA/05
CAS No:	67-63-0
Chemical formula	C <sub>3</sub> H <sub>8</sub> O
Mol. Wt.	60.1
Issue Date	18/08/2021
Version	2.3

S. No.	Characteristics	UOM	Specification
1	Description	-	Clear colourless liquid with characteristic odour.
2	Solubility	-	Miscible with water, ethanol (96 %), ether and chloroform .
3	Identification		
	A ) By IR	-	IR absorption spectrum of sample exhibits maxima at the same wavelength as that of IPA ref.std.or working std
	B ) Relative density at 20 ° C	-	Between 0.785 to 0.789
	C ) Chemical test	-	Colour changes to blue
	D) Chemical test		A white or yellowish precipitate is produced with mercuric sulphate solution
	E ) Chemical test	-	Acetone recognizable by its odour is evolved with dilute potassium dichromate solution and sulphuric acid
	F ) Refractive index at 20 ° C	-	Between 1.377 to 1.378
	G) Identification by GC		The R.T of major peak of the sample solution corresponds to the 2-propanol peak of the system suitability solution, as obtained in the Assay
	H ) Identification	-	After 2-5 minutes ,the entire sulphuric acid layer turns violet.
4	Specific gravity at 25 ° C	-	Between 0.783 to 0.787
5	Weight per mL	-	Between 0.782 to 0.786 gm
6	Refractive index at 20°C		Between 1.377 to 1.378
7	Appearance of solution	-	A) The substance to be examined is clear and colorless



## Product Specification

Product Name:	ISO PROPYL ALCOHOL IP/BP/Ph.Eur /USP
DC No.	QA/FP/SPE/IPA/05
CAS No:	67-63-0
Chemical formula	C3H8O
Mol. Wt.	60.1
Issue Date	18/08/2021
Version	2.3

5	8	Limit of volatile impurities	%	<p>B) Sample (1 in 20 ) is clear after 5 min</p> <p>A) Diethyl ether is NMT 0.1 %</p> <p>B) Acetone is NMT 0.1 %</p> <p>C ) Di isopropyl ether is NMT 0.1 %</p> <p>D ) n-Propyl alcohol is NMT 0.1 %</p> <p>E) 2-Butanol NMT 0.1 %</p> <p>F) Total Impurities is NMT 1.0 %</p>
9		Acidity or Alkalinity	ml	NMT 0.6 ml of 0.01 N Sodium Hydroxide is required to change the colour of the indicator to pale pink .
10		Acidity or Alkalinity		NMT 0.7 ml of 0.02 N NaOH is required for neutralization .
11		Absorbance	-	<p>At 230 nm is NMT 0.30</p> <p>At 250 nm is NMT 0.10</p> <p>At 270 nm is NMT 0.03</p> <p>At 290 nm is NMT 0.02</p> <p>At 310 nm is NMT 0.01</p>
12		Benzene & total related Substances by GC	ppm	A ) Benzene is NMT 2 ppm
			%v/v	B ) Total impurity apart from 2-butanol is NMT 0.3%
13		Peroxides	-	No colour develops .
14		Non volatile substances	%w/v	NMT 20 ppm
15		Water	%w/w	NMT 0.5





## Product Specification

Product Name: ISO PROPYL ALCOHOL IP/BP/Ph.Eur /USP  
 DC No. QA/FP/SPE/IPA/05  
 CAS No: 67-63-0  
 Chemical formula C<sub>3</sub>H<sub>8</sub>O  
 Mol. Wt. 60.1  
 Issue Date 18/08/2021  
 Version 2.3

16	Assay	%w/w	NLT 99.0
17	Distillation range	%v/v	NLT 95.0 %v/v distils between 81° C and 83° C
18	Aldehydes and Ketones	ml	NMT 2.0 ml of 0.1 M Sodium Hydroxide required .
19	Water insoluble matter	-	No opalescence is produced.
	Inhouse test		
20	Residual Solvents By GC	% w/w	Cyclohexane NMT 0.005% 1-Propanol NMT 0.2%
21	Methanol Content By GC	ppm	NMT 200

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 NMT Not more than  
 NLT Not less than  
 w/v Weight by volume  
 v/v Volume by volume  
 ppm Part per millions



## Product Specification

Product Name:	ISO PROPYL ALCOHOL CP
DC No.	QA/FP/SPE/IPA/23
CAS No:	67-63-0
Chemical formula	C3H8O
Mol. Wt.	60.1
Issue Date	20/12/2021
Version	2.1

S. No.	Characteristics	UOM	Specification
1	Description	-	A colourless and clear liquid .
2	Solubility	-	Miscible with water,with methanol ,with ethanol and with ether.
3	Relative density at 20°C	-	0.785 to 0.788
4	Refractive index at 20 °c.	-	1.376 to 1.379
5	Identification - 1	-	A light yellow precipitate and a characteristic odour of iodoform are produced.
	Identification - 2	-	Turns filter paper ,previously wetted with a solution of salicylaldehyde in ethanol (1:10) and with 30%hydroxide solution ,to reddish brown.
	Identification - 3	-	IR spectrum of sample exhibits maxima at the same wavelength as that of a similar preparation of IPA ref.std.or working std
6	Acidity	-	Not more than 1.4 ml NaOH (0.01 mol/L) is required.
7	Clarity and colour of solution	-	The solution is clear and colourless.
8	Absorbance	-	At 230 nm is NMT 0.30 - At 250 nm is NMT 0.10 - At 270 nm is NMT 0.03 - At 290 nm is NMT 0.02 - At 310 nm is NMT 0.01
9	Water insoluble substance	-	Allow to stand for 5 minutes,the solution maintains clear.
10	Non volatile matter	-	The residue is not more than 1.0mg ( 0.002% gm /ml)
11	Readily oxidizable substance	-	The pink colour of substance does not disappear completely after 15 min.
12	Readily carbonizable substance	-	Any colour produced is not more intense than that of the reference solutuion Y1.



## Product Specification

Product Name: ISO PROPYL ALCOHOL CP  
 DC No. QA/FP/SPE/IPA/23  
 CAS No: 67-63-0  
 Chemical formula C<sub>3</sub>H<sub>8</sub>O  
 Mol. Wt. 60.1  
 Issue Date 20/12/2021  
 Version 2.1

13	Carbonyl compound	-	The dark red colour produced is not more intense than that of 0.50 ml of the reference solution (CO) obtained in the same way .
14	Water	%w/w	NMT 0.2
15	Benzene and related substances	-	Test solution (a) not more than 0.5 times the area of the corresponding peak in the chromatogram obtained with reference solution (b) (≤ 2 ppm)
		%v/v	Total impurities apart from 2-Butanol NMT 0.3

**Reference:** China Pharmacopeia

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 NMT Not more than



## Product Specification

Product Name:	ISO PROPYL ALCOHOL COSMETIC Grade
DC No.	QA/FP/SPE/IPA/06
CAS No:	67-63-0
Chemical formula	C3H8O
Mol. Wt.	60.1
Issue Date	23/04 /2021
Version	2.2

Sr. No.	Characteristics	UOM	Specification
1	Odour	-	Soft top note with characteristic odour
2	Appearance	-	Clear colourless liquid free from suspended particles.
3	Purity	%w/w	≥ 99.80
4	Colour	Pt-co	≤ 5
5	Density at 20° C	gm/ml	0.785 to 0.786
6	Refractive index at 20 °C	-	1.376 to 1.377
7	Acidity as acetic acid	ppm	≤ 10
8	Non volatile matter	gm/100m	≤ 0.001
9	water miscibility	-	Miscible
10	Water content	%w/w	0.1

**Reference:** In House

**Abbreviations:**

DC No.	Document Control Number
FP	Finish Product
UOM	Unit of measurement
w/w	Weight by weight



## Product Specification

Product Name:	ISO PROPYL ALCOHOL Food Grade
DC No.	QA/FP/SPE/IPA/08
CAS No:	67-63-0
Chemical formula	C3H8O
Mol. Wt.	60.1
Issue Date	30/09/2021
Version	2.1

S. No.	Characteristics	UOM	Specification
1	Appearance (Color )	-	Colourless
2	Appearance (Form )	-	Liquid
3	Refractive index at 20 ° C	-	1.377- 1.380
4	Infrared spectrum	-	Conforms
5	Purity (GC )	%w/v	≥ 99.7
6	Boiling point by DSC	° C	81.3-83.3
7	Water (by karl fischer )	%	≤ 0.2
8	Solubility (Turbidity )	-	Clear
9	Solubility ( Colour ) 10 ml/40 ml water	-	Colorless
10	Residue on evaporation	ppm	≤ 10
11	Specific gravity at 25 ° C	-	≤ 0.784
12	Substance reducing ( by KMnO4 )	-	Pass
13	Acidity	-	Pass
14	* Heavy Metal		
	Arsenic (As)	ppm	≤ 3
	Cadmium (Cd)	ppm	≤ 1
	Lead (Pb)	ppm	≤ 1

### Reference: In House

DC No.	Document Control Number
FP	Finish Product
UOM	Unit of measurement
w/w	Weight by weight
%w/v	Weight by volume
*	Heavy Metal test analyse on annual basis.



## Product Specification

Product Name: ISO PROPYL ALCOHOL LR Grade  
 DC No. QA/FP/SPE/IPA/09  
 CAS No: 67-63-0  
 Chemical formula C3H8O  
 Mol. Wt. 60.1  
 Issue Date 24/08/2021  
 Version 2.1

S. No.	Characteristics	UOM	Specification
1	Description	-	A Clear, colourless liquid with characteristic odour.
2	Assay (GC)	%w/w	>= 99.0
3	Identification by FTIR	-	Conforms
4	Weight per ml ( at 20 °c.)	gm	0.784 to 0.786
5	Residue After Evaporation	%w/v	<= 0.00200
6	Water content , maximum	%w/w	<=0.200

**Reference:** Method of analysis as per USP

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 %w/v Weight by volume



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## Product Specification

Product Name: ISOPROPYL ALCOHOL Rubbing Alcohol  
DC No. QA/FP/SPE/IPA/15  
CAS No: 67-63-0  
Chemical formula C<sub>3</sub>H<sub>8</sub>O  
Mol. Wt. 60.1  
Issue Date 18-11-2020  
Version 2.0

Sr. No.	Characteristics	UOM	Specification
1	Description	-	Clear colourless liquid with characteristic odour
2	Specific gravity at 20 °C	.-	0.872 to 0.883
3	Acidity	ml	Not more than 1.0 ml of 0.02 M NaOH
4	Limit Nonvolatile residue	mg	Not more than 5.0 mg
5	Assay by GC	% v/v	68.0 to 72.0

**Reference:** Indian Pharmacopeia

**Abbreviations:**

DC No. Document Control Number  
FP Finish Product

UOM Unit of measurement  
v/v volume by volume  
GC Gas chromatography



**Product Specification**

Product Name: ISO PROPYL ALCOHOL AR Grade  
 DC No. QA/FP/SPE/IPA/22  
 CAS No: 67-63-0  
 Chemical C3H8O  
 Mol. Wt. 60.1  
 Issue Date 12/01/2022  
 Version 2.0

S. No.	Characteristics	UOM	Specification
1	Appearance (Clarity)	-	Clear
2	Appearance (colour)	-	Colourless
3	Appearance ( Form)	-	Liquid
4	Colour (APHA)	APHA	Max 10
5	Assay (GC)	%w/w	Min 99.5
6	Density @20°C	g/ml	0.784-0.786
7	Refractive Index@ 20°C	-	1.377-1.378
8	Boiling Range	°C	81-83
9	Non volatile matter	%w/w	Max 0.001
10	Acidity as C3H6O2	%w/w	Max 0.001
11	Substance reducing permagnate (O)	%w/w	max0.0005
12	Iron (Fe)	%w/w	Max 0.0001
13	Aldehyde & Ketone	%w/w	Max 0.005
14	Heavy metal (pb)	%w/w	Max 0.0001
15	Ethanol (GC)	%w/w	Max 0.01
16	Methanol (GC)	%w/w	Max 0.01
17	Water (by Karl Fisher)	%	Max 0.1

DC No. Document Control Number  
 FP Finish Product  
 UOM Unit of measurement  
 w/w Weight by weight  
 NMT Not more than  
 NLT Not less than





## Product Specification

Product Name:	ISO PROPYL ALCOHOL Electronic Grade
DC No.	QA/FP/SPE/IPA/20
CAS No:	67-63-0
Chemical formula	C <sub>3</sub> H <sub>8</sub> O
Mol. Wt.	60.1
Issue Date	10-08-2021
Version	2.0

S. No.	Characteristics	UOM	Specification
1	Appearance (Color)	-	Colourless
2	Appearance (Form)	-	Liquid
3	Infrared spectrum	-	Confirms to structure
4	Purity (GC)	%	NLT 99.9
5	Acetone	%	NMT 0.01
6	Water (by Karl Fisher)	%	NMT 0.05
7	Residue on evaporation	%	NMT 0.0005
8	Free Acid as Acetic acid	%	NMT 0.001
9	Aluminum (Al)	ppb	NMT 10
10	Antimony (Sb)	ppb	NMT 10
11	Arsenic (As)	ppb	NMT 10
12	Barium (Ba)	ppb	NMT 10
13	Beryllium (Be)	ppb	NMT 10
14	Bismuth (Bi)	ppb	NMT 10
15	Boron (B)	ppb	NMT 10
16	Cadmium (Cd)	ppb	NMT 10
17	Calcium (Ca)	ppb	NMT 10
18	Chromium (Cr)	ppb	NMT 10
19	Cobalt (Co)	ppb	NMT 10
20	Copper (Cu)	ppb	NMT 10
21	Gallium (Ga)	ppb	NMT 10
22	Germanium (Ge)	ppb	NMT 10
23	Gold (Au)	ppb	NMT 10
24	Indium (In)	ppb	NMT 10
25	Iron	ppb	NMT 10
26	Lead (Pb)	ppb	NMT 10

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## Product Specification

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DC No. QA/FP/SPE/IPA/20  
CAS No: 67-63-0  
Chemical formula C<sub>3</sub>H<sub>8</sub>O  
Mol. Wt. 60.1  
Issue Date 10-08-2021  
Version 2.0

S. No.	Characteristics	UOM	Specification
27	Lithium (Li)	ppb	NMT 10
28	Magnesium (Mg)	ppb	NMT 10
29	Manganese (Mn)	ppb	NMT 10
30	Molybdenum (Mo)	ppb	NMT 10
31	Nickel (Ni)	ppb	NMT 10
32	Platinum (Pt)	ppb	NMT 10
33	Potassium (K)	ppb	NMT 10
34	Silver (Ag)	ppb	NMT 10
35	Sodium (Na)	ppb	NMT 10
36	Strontium (Sr)	ppb	NMT 10
37	Thallium (Tl)	ppb	NMT 10
38	Tin (Sn)	ppb	NMT 10
39	Titanium (Ti)	ppb	NMT 10
40	Vanadium (V)	ppb	NMT 10
41	Zinc	ppb	NMT 20
42	Zirconium (Zr)	ppb	NMT 10

DC No. Document Control Number  
FP Finish Product  
UOM Unit of measurement  
w/w Weight by weight  
NMT Not more than  
NLT Not less than