



Deepak Fertilisers and Petrochemicals Corporation Limited,

W11 & W23 MIDC Industrial Area Phase II, Dombivali East Maharashtra

Specification

		SPECIFICATION	AND TEST PROC	EDURE.		
-	PROD	OUCT NAME: ISOF	PROPYL ALCOHOL	IP/BP/EP/USP		
CHANG	GE CONTROL NO.	CC#2022-001				
DEP T.	SPECIFICATION NO.	REVISION No.	SUPERSEDES	EFF. DATE	REV.DATE	PAGE No.
QC	DFPCL/GMP/QC/SPE/FP/001	08	07	16/02/2022	15/02/2024	Page 1 of 2

Test	Specification limit	
Description	Clear colourless liquid with characteristic spirituous odour and flammable.	
Solubility	Miscible in water ,ethanol (96%),ether and chloroform .	
Appearance of solution	a) The solution is clear and colourless b) sample (1in 20) is clear after 5 min ,compare to B9	
Identification		
A. By IR	IR absorption spectrum of sample exhibits maxima at the same wavelength as that of IPA ref. std. or working std	IP,BP,EP USP
B. 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.	IP,BP,EP, USP
C. Relative density at 20°C	Between 0.785 to 0.789	IP,BP,EP
D. Refractive index at 20 °C	1.376 to 1.379	IP,BP,EP
E. Chemical test	A white or yellowish precipitate is produced with mercuric sulphate solution.	IP
F. Chemical test	Acetone recognizable by its odour is evolved with dilute potassium dichromate solution and sulphuric acid .	IP
G. Chemical test	A bright reddish-violet ring forms immediately at the junction of the 2 liquid .After 2-5 mins, the entire sulphuric acid layers	BP,EP
H. Identification of methanol by GC	The R.T of methanol peak of the sample solution corresponds to the methanol peak of the system suitability solution, as	USP
		USP
Refractive Index at 20°C	active Index at 20°C 1.376 to 1.378	
Limit of volatile impurities a. Methanol b. Diethyl ether c. Acetone d. Di isopropyl ether e. N-Propyl alcohol	a) Not more than 200 ppm b) Not more than 0.1% v/v c) Not more than 0.1% v/v d) Not more than 0.1% v/v e) Not more than 0.1% v/v	USP
	Description Solubility Appearance of solution Identification A. By IR B. Identification by GC C. Relative density at 20°C D. Refractive index at 20 °C E. Chemical test F. Chemical test G. Chemical test H. Identification of methanol by GC Specific gravity at 25°C Refractive Index at 20°C Limit of volatile impurities a. Methanol b. Diethyl ether c. Acetone d. Di isopropyl ether	Clear colourless liquid with characteristic spirituous odour and flammable. Solubility Miscible in water ,ethanol (96%),ether and chloroform . a) The solution is clear and colourless b) sample (1in 20) is clear after 5 min ,compare to B9 Identification A. By IR B. Identification by GC B. Identification by GC C. Relative density at 20°C D. Refractive index at 20 °C E. Chemical test G. Chemical test G. Chemical test H. Identification of methanol by GC H. Identification of methanol by GC A bright reddish-violet ring forms immediately at the junction of the 2 liquid .After 2-5 mins, the entire sulphuric acid layers turns violet. The R.T of methanol peak of the system suitability solution, as obtained in the Assay. Between 0.785 to 0.789 1.376 to 1.379 A white or yellowish precipitate is produced with mercuric sulphate solution. Acetone recognizable by its odour is evolved with dilute potassium dichromate solution and sulphuric acid layers turns violet. The R.T of methanol peak of the sample solution corresponds to the methanol peak of the system suitability solution, as obtained in the Assay. Specific gravity at 25°C Q.783 to 0.787 Refractive Index at 20°C 1.376 to 1.378 a) Not more than 200 ppm b) Not more than 0.1% v/v c) Not more than 0.1% v/v e) Not more than 0.1% v/v e) Not more than 0.1% v/v

Action by	Name	Designation	Signature	Date
Prepared	R.B.Patil	Manager QC/QA	Patil	16/02/2022
Checked	S.B.Amle	AGM-QC/QA	8th	16/04/WM
Approved	Dr.L.B.Yadawa	GM-QC/QA	3/21	16/02/2022





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SPECIFICATION AND TEST PROCEDURE. PRODUCT NAME: ISOPROPYL ALCOHOL IP/BP/EP/USP CHANGE CONTROL NO. CC#2022-001 SUPERSEDES EFF. DATE **REV.DATE** PAGE No. DEPT. SPECIFICATION NO. REVISION No. 16/02/2022 15/02/2024 Page 2 of 2 DFPCL/GMP/QC/SPE/FP/001 08 QC 07

Sr.No	Test	Specification limit	Reference	
	g. Individual unspecified impurity h. Cyclohexane i. Total Impurities	g) Not more than 0.1 % v/v h) Not more than 0.005% v/v (Inhouse) i) Not more than 1.0 % v/v		
8	Non volatile substance	a) NMT 20 ppm b) NMT 0.005 % (2.5 mg)	BP,EP USP	
9	Acidity or Alkalinity	a) NMT 0.70 ml of 0.02 N NaOH is required for neutralisation b) NMT 0.6 ml 0.01 M NaOH is required to change the colour of the indicator to pale pink	USP IP,BP,EP	
10	Absorbance by UV a. At 230 nm b. At 250 nm c. At 270 nm d. At 290 nm e. At 310 nm	Not more than 0.30 Not more than 0.10 Not more than 0.03 Not more than 0.02 Not more than 0.01	IP,BP,EP	
11	Benzene and related substance a. Benzene b. Total Impurities apart from 2-butanol	a) Not more than 2 ppm, b) Not more than 0.3 %	IP,BP,EP	
12	Peroxide	No colour develops	BP,EP	
13	Water	NMT 0.5%	IP,BP,EP,USP	
14	Assay by GC	NLT 99.0 % v/v	USP,IP	

Action by	Name	Designation	Signature	Date
Prepared	R.B.Patil	Manager QC/QA	Pratil	16/02/2022
Checked	S.B.Amle	AGM-QC/QA	841	16/04/62
Approved	Dr.L.B.Yadawa	GM-QC/QA	3	16/02/2022