

Item Number	G9300
Item	Glycerin (Glycerol) Natural, USP, EP, BP, JP, FCC, bioCERTIFIED (TM)
CAS Number	56-81-5
Molecular Formula	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>
Molecular Weight	92.10
MDL Number	
Synonyms	

Test	Specification	
	Min	Max
APPEARANCE		
ASSAY (ANHYDROUS BASIS) (USP)	99.0	101.0 %
ASSAY (AS-IS-BASIS) (FCC)	99.0	101.0 %
ASSAY (ANHYDROUS BASIS) (EP/BP)	98.0	101.0 %
ASSAY (ANHYDROUS BASIS) (JP)	98.0	101.0 %
REFRACTIVE INDEX (EP/BP/JP)	1.470	1.475
SPECIFIC GRAVITY @ 25°C (USP/FCC)	1.249	
SPECIFIC GRAVITY @ 20°C (JP)	1.258	
ESTERS (EP/BP)	8.0 mL	
APPEARANCE OF SOLUTION (EP/BP)	SOLUTION IS CLEAR AND COLORLESS	
COLOR (USP/FCC/JP)	NOT DARKER THAN STANDARD	
RESIDUE ON IGNITION (USP/JP)		0.01 %
RESIDUE ON IGNITION (FCC)		0.01 %
SULFATED ASH (EP/BP)		0.01 %
CHLORIDE (USP)		10 ppm
CHLORIDES (EP/BP)		10 ppm
CHLORIDE (JP)		0.001 %
SULFATE (USP/JP)		20 ppm
AMMONIUM (JP)	EVOLVED GAS DOES NOT CHANGE MOISTENED RED LITMUS PAPER TO BLUE	
LEAD (FCC)		1 mg/kg
HEAVY METALS (JP)		5 ppm

Test	Specification	
	Min	Max
CALCIUM (JP)	SOLUTION REMAINS UNCHANGED	
ARSENIC (JP)		2 ppm
ACROLEIN, GLUCOSE, OR OTHER REDUCING SUBSTANCES (JP):		
CRITERIA 1	NO YELLOW COLOR IS PRODUCED	
CRITERIA 2	COLOR OF THE SOLUTION DOES NOT CHANGE AND NO TURBIDITY IS PRODUCED	
READILY CARBONIZABLE SUBSTANCES (FCC/JP)	NOT MORE COLORED THAN MATCHING FLUID H	
LIMIT OF CHLORINATED COMPOUNDS (USP/FCC)		30 ppm
HALOGENATED COMPOUNDS (EP/BP)		35 ppm
ACIDITY OR ALKALINITY (EP/BP)	COLORLESS <0.2mL	
ACIDITY OR ALKALINITY (JP)	SOLUTION IS NEUTRAL	
WATER DETERMINATION (USP/FCC)		1.0 %
WATER (EP/BP)		2.0 %
WATER (JP)		2.0 %
FATTY ACIDS AND ESTERS (USP/FCC)		1 mL
FATTY ACIDS AND ESTERS (JP)		3.0 mL
RELATED COMPOUNDS (USP):		
INDIVIDUAL IMPURITIES		0.1 %
TOTAL IMPURITIES		1.0 %
IMPURITY A & RELATED SUBSTANCES (EP/BP):		
IMPURITY A		0.1 %
ANY OTHER IMPURITY WITH RETENTION TIME LESS THAN THE RETENTION TIME OF GLYCEROL		0.1 %
TOTAL OF ALL IMPURITIES WITH RETENTION TIME GREATER THAN THE RETENTION TIME OF GLYCEROL		0.5 %
ETHYLENE GLYCOL, DIETHYLENE GLYCOL, AND RELATED SUBSTANCES (JP):		
ETHYLENE GLYCOL		0.1 %
DIETHYLENE GLYCOL		0.1 %
PEAKS OTHER THAN GLYCERIN, ETHYLENE GLYCOL, AND DIETHYLENE GLYCOL		0.1 %
TOTAL PEAKS OTHER THAN GLYCERIN		1.0 %
ALDEHYDES (EP/BP)		10 ppm

Test	Specification	
	Min	Max
SUGARS (EP/BP)	REMAINS BLUE AND NO PRECIPITATE FORMS	
MICROBIAL LIMITS:		
TAMC		1000 cfu/mL
TYMC		100 cfu/mL
ENDOTOXINS		10 IU/mL
ELEMENTAL IMPURITIES	AS REPORTED	
IDENTIFICATION A (USP A)	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION B (USP B):		
LIMIT OF DIETHYLENE GLYCOL		0.10 %
LIMIT OF ETHYLENE GLYCOL		0.10 %
IDENTIFICATION C (USP C)	RETENTION TIME CORRESPONDS TO STANDARD	
IDENTIFICATION D (FCC A)	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION E (FCC B)	RETENTION TIME CORRESPONDS TO STANDARD	
IDENTIFICATION F (EP/BP A)	1.470	1.475
IDENTIFICATION G (EP/BP B)	SPECTRUM MATCHES REFERENCE	
IDENTIFICATION H (EP/BP C)	1.258	1.268
IDENTIFICATION I (JP)	SPECTRUM MATCHES REFERENCE	
CERTIFIED KOSHER		
EXPIRATION DATE		
DATE OF MANUFACTURE		
MONOGRAPH EDITION.		
MONOGRAPH EDITION		
MANUFACTURER NAME:		
RESIDUAL SOLVENTS	AS REPORTED	

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