

SPECIFICATION

Product Name: Tween 80 BP/USP Grade
Chemical Formula: C ₆₄ H ₁₂₄ O ₂₆
CAS Number: 9005-65-6
Molecular Weight: 1,310 g/mol
Appearance: Brownish yellow oily clear liquid
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification			
A) Infrared absorption spectrophotometry	-	Complies	IR absorption spectrum of test sample is concordant with IR spectrum obtained from reference standard.
B) Composition of fatty acids	-	Complies	Should comply with test for fatty acid composition
Composition of fatty acids			
Myristic acid	%	0.15%	-
Palmitic acid	%	8.13%	NMT 16.0%
Palmitoelic acid	%	Nil	NMT 8.0%
Stearic acid	%	Nil	NMT 6.0%
Oleic acid	%	88.01%	NLT 58.0%
Linolenic acid	%	8.79%	NMT 18.0%
Linolenic acid	%	Nil	NMT 4.0%

Residue on ignition	%	0.11%	NMT 0.25%
Ethylene oxide content	PPM	<1 PPM	NMT 1 PPM
Dioxane content	PPM	<10 PPM	NMT 10 PPM
Specific gravity	-	1.083	1.06 – 1.09
Viscosity at 25 C	cst	409.42 cst	300 – 500 centistokes
Acid value	-	0.43	NMT 2.0
Hydroxyl value	-	76.08	65 – 80
Peroxide value	-	0.94	NMT 10.0
Saponification value	-	46.56	45 -55
Water content	%	2.13%	NMT 3.0%
Arsenic	PPM	<1.0	Max. 1.00
pH (5%aq.soln)	-	7.1	6.0 – 8.0
Heavy metal	PPM	<10	Max. 10.00
Iodine value	mgKOH/g	20.55	18.00 – 24.00
Sulphated ash	%	0.19%	Max. 0.20%
Odour	-	Complies	Faint & characteristic

Physical Properties

- Solubility: Soluble in water. Soluble in ethanol. Insoluble in acetone. Soluble in methanol. Insoluble in ether.

Shelf Life & Storage

- Shelf Life: 3 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a tightly closed, airtight container in a cool, dry, and well-ventilated place, protected from excessive heat, direct sunlight, moisture, and contamination.

Applications

- Use: Widely used in store in a tightly closed, airtight container in a cool, dry, and well-ventilated place, protected from excessive heat, direct sunlight, moisture, and contamination.
- Dosage: Depends on Type and concentration of the active ingredient, Oil phase composition, Required emulsification or solubilization, Formulation type, Processing conditions, Applicable regulatory requirements.

Packaging

- Standard Packing: 55 Liter HDPE Drum or as per customer requirement.
 - Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.
- * Specifications are based on the manufacturer's provided specifications.