

No.	Parameter	Method / Reference	Sample Type
1	Acidity as Acetic acid in Volatile Solvent (EG)	ASTM D1613-02	Chemical
2	Acid Value in Biodiesel	ASTM D6664-18e2	Chemical
3	Aldehyde Content in EO, EG and Water Liquid Sar	S-63C	Chemical
4	Ash Content	ASTM D-482	Chemical
5	Distillation of Volatile Organic Liquids for General	ASTM D1078-05	Chemical
6	Traces Chloride in Glycol	EO 593	Chemical
7	Pt-Co Color After 4 hrs. Boiling	DC-406	Chemical
8	Lovibond Color	ISO 15305	Chemical
9	Pt-Co Color After Heating with HCl	DC-407	Chemical
10	Pt-Co Color	ASTM D5386-10	Chemical
11	Pt-Co Color After Heating with Caustic	EO-548	Chemical
12	Foaming Tendency	EO-676	Chemical
13	Non-Volatile Matter in EO	DC-133	Chemical
14	Bicarbonate and Carbonate Contents by Auto-Titra	EO-492A	Chemical
15	Appearance	Visual Inspection	Chemical
16	Specific Gravity	ASTM D4052-18a	Chemical
17	Water Content (by KF)	ASTM E1064-00/PX 0316	Chemical
18	Water Content (by KF)	EN ISO 12937	Chemical
19	%Transmittance	ASTM E2193	Chemical
20	MEG,DEG,TEG in Glycols	EO-498C	Chemical
21	Mono, Di,Tri, Free Glycerol Contents	EN 14105	Chemical
22	Iodine Number in Activated Carbon	ASTM D4607-86	Chemical
23	Carbon dioxide in Glycol	ASTM D2505-88	Chemical

No.	Parameter	Method / Reference	Sample Type
24	Impurities in Glycol	EO-679A	Chemical
25	Matter (Organic) Non-Glycerol Content	พฉก.1754-2542/ ISO 2464,USP,ISO 2098-1972,AS	Chemical
26	Glycerol Content	USP	Chemical
27	Methanol in water	ASTM D 3695-95 (Reapproved 2001)	Chemical
28	Solid point as no flow point in Fatty	ASTM D7346	Chemical
29	Composition of Fatty Alcohol	In house method	Chemical
30	Acid Value in Fats and Oils	ISO660-2009	Chemical
31	Water(Volumetric Karl Fischer Titration)	ASTM E203-16	Chemical
32	Ester and Linolenic Acid ME Content	EN 14103-2011	Chemical
33	Iodine Value	Inhouse method	Chemical
34	Carbonyl number in Fatty alcohol and Fatty acid	Inhouse method	Chemical
35	Hydroxyl Value in Fatty alcohol and Fatty acid	ASTM E 1899-08	Chemical
36	Saponification value	ISO 3657:2013 (E)	Chemical
37	Water content in gas sample and liquefied sample	ASTM D7995	Chemical
38	Refinery Gas Analysis	UOP 539	Chemical
39	Conductivity in water sample	ASTM D1125	Chemical
40	Formaldehyde in Water	ASTM D6303	Chemical
41	Free Carbon Dioxide	APHA 4500	Chemical
42	%T of Glycol	ASTM E2193	Chemical
43	Distillation Range of Volatile Organic Liquids	ASTM D1078	Chemical
44	Acidity in Volatile Solvent (EG)	ASTM D1613	Chemical
45	Iron Content (1,10-Phenanthroline Method)	ASTM E394	Chemical

No.	Parameter	Method / Reference	Sample Type
46	HAZEN Color	ASTM D5386/B00250@000000 (Rev.1)	Chemical
47	Ash Content in Petroleum Product	ASTM D482	Chemical
48	Water Content in Liquid Organic Chemicals by KF	ASTM E1064/PX 0316/EN ISO 12937	Chemical
49	Total and Dissolved Iron in Water by Phenanthrolin	APHA 3500 Fe B	Chemical
50	Acidity and Alkalinity of Water	ASTM D1067	Chemical
51	pH in Aqueous Solutions	ASTM E70	Chemical
52	COD by Closed Reflux, Colorimetric Method	APHA 5220 D	Chemical
53	Formaldehyde Content in Water	ASTM D6303	Chemical
54	Water Content in Gas Sample by Gravimetric meth	Gravimetric method	Chemical
55	pH and Temperature in Water	APHA 4500	Chemical
56	MEG in Carbonioe Solution	EN 14078	Chemical
57	pH in Glycols	ASTM D1287	Chemical
58	Glycol Impurities in Mono-, Di-, Tri- and Tetra-Ethyl	ASTM E2409	Chemical
59	Methanol in Water	ASTM D 3695-95 (Reapproved 2001)	Chemical
60	Acid Value in Fats and Oils	ISO660:2009	Chemical
61	Free Fatty Acid in Fats and Oils	Inhouse method based on ISO660: 2009	Chemical
62	Cloud Point of Petroleum Product	ASTM D7689 -21	Chemical
63	Phosphorus in Crude and Refine Vegetable Oils	AOCS Official Method Ca 12-55	Chemical
64	Water Content in General Samples	ASTM E203	Chemical
65	Water Content in Polyols (use Methanol as solvent	ASTM D4672	Chemical
66	Water Content in Samples	ASTM E203	Chemical
67	Cold Filter Plugging Point (CFPP) in Oil	ASTM D6371	Chemical
68	Density and SG of Liquids	ASTM D4052	Chemical

No.	Parameter	Method / Reference	Sample Type
69	Contaminate in Biodiesel and Oil	EN 12662	Chemical
70	Flash Point in Biodiesel (Procedure C)	ASTM D93 (Procedure C)	Chemical
71	Iodine in Animal and Vegetable fats and oils	ISO 3961	Chemical
72	Iodine in Fatty Acid Methyl Esters	EN 14111:2003	Chemical
73	Iodine Value	AOCS Cd 1C-85	Chemical
74	Kinematic Viscosity in Biodiesel and PPG	ASTM D445	Chemical
75	Na, K, Ca and Mg in Biodiesel	AAS. Technique	Chemical
76	Oxidation Stability in Fatty Acid Methyl Ester	EN 15751	Chemical
77	Methanol in Methyl Ester	EN 14110	Chemical
78	Mono-, Di-, Tri-, and Free Glycerol Contents	modified method EN 14105 : 2011	Chemical
79	Ester and Linolenic Acid ME Content in Biodiesel	EN 14103	Chemical
80	Lovibond Color in Fats and Oils	ISO 15305	Chemical
81	Peroxide Value in Fats and Oils	ISO 3960:2001(E)	Chemical
82	Unsaponifiable Matter in Sample	USP-NF	Chemical
83	Saponification value in Fats and Oils	ISO 3657	Chemical
84	Sulfated Ash Content in Methyl Ester	ASTM D874	Chemical
85	Identification C in Glycerin	Inhouse method	Chemical
86	Ash Content in Glycerin	ISO 2098-1972	Chemical
87	Chloride in Glycerin	ASTM D512/APHA 4500 Cl- D	Chemical
88	Acidity or Alkalinity in Glycerin	Inhouse method	Chemical
89	Residue on Ignition in Glycerin	Inhouse method	Chemical
90	Sulfate Content in Pharmaceutical Glycerin	Inhouse method	Chemical
91	Sulfated Ash Content in Glycerine	Inhouse method	Chemical

No.	Parameter	Method / Reference	Sample Type
92	Refractive Index in Hydrocarbon Liquids	ASTM D128-21	Chemical
93	Esters in Glycerin	Inhouse method	Chemical
94	Chloride in Pharmaceutical Glycerin	USP-NF	Chemical
95	Total Heavy Metals in Glycerin	USP-NF (231)	Chemical
96	Aldehyde in Glycerin	Inhouse method	Chemical
97	Fatty Acids and Esters Content in Glycerin	USP-NF	Chemical
98	Sugar Content in Pharmaceutical Glycerin	Inhouse method	Chemical
99	Matter Organic Non-Glycerol (MONG)	พฉ.1754-2542/ ISO 2464	Chemical
100	Glycerin Assy	EP/ USP-NF	Chemical
101	Identification A in Refined Glycerin	EP (Monograph)	Chemical
102	Identification B in Refined Glycerin	EP (Monograph)	Chemical
103	Impurity A and Related Substance in Glycerin	EP (2.2.28)	Chemical
104	Halogenated Compound in Glycerin	EP	Chemical
105	Limit of Chlorinated Compound in Glycerin	USP-NF	Chemical
106	DEG and EG in Glycerin	USP-NF	Chemical
107	3-Methoxy 1,2 Propanediol in Glycerin	Based on USP	Chemical
108	Related Compound in Refined Glycerin	USP-NF	Chemical
109	Readily Carbonizable Substance in Glycerin	USP-NF	Chemical
110	Sulfate and Sulfur Content in Potassium Sulfate	AOAC 14th Edition (980.02)	Chemical
111	Potassium Oxide Content in Potassium Sulfate	Official methods of analysis of fertilizer, December	Chemical
112	Chloride in Potassium Sulfate	AOAC 14th Edition (928.02)	Chemical
113	Moisture Content in Potassium Sulfate	AOAC 14th Edition	Chemical
114	Moisture Content in Potassium Sulfate	AOAC 14th Edition (950.01)	Chemical

No.	Parameter	Method / Reference	Sample Type
115	Iodine Number in Activated Carbon	ASTM D4607-86	Chemical
116	Total Alkalinity of Caustic Soda and Caustic Potash	ASTM E 291	Chemical
117	Total Alkalinity of Caustic Soda and Caustic Potash	ASTM E 291	Chemical
118	FT-NIR method for ME content	FT-NIR method for ME content	Chemical
119	FT-NIR method for OHV	ASTM D6342	Chemical
120	FT-NIR method for COV	FT-NIR method for COV	Chemical
121	FT-NIR method for Mono-,Di-, Tri- and Free Glycerin	FT-NIR method for Mono-,Di-, Tri- and Free glycerin	Chemical
122	FT-NIR method for CFPP	FT-NIR method for CFPP	Chemical
123	Solubility of Glycerin	In-house method	Chemical
124	Acid Number in Biodiesel	ASTM D664	Chemical
125	Phosphoric Color by Gardner Unit	ASTM D6166/O-BASF No. CT-0219	Chemical
126	Bound-Glycerin and Free-Glycerin in Fatty alcohol	In-house method	Chemical
127	Solidification Point and Titer Point in Fatty alcohol	ISO 3841	Chemical
128	Hydroxyl Value in Sample	ASTM E1899	Chemical
129	Water Content in Solid (Fatty alcohol C16, C18)	ISO 4317	Chemical
130	Solid Point as No Flow Point	ASTM D7346	Chemical
131	Chloride in Water (pH >7)	ASTM D512	Chemical
132	Color by Gardner unit in EA	ASTM D 6166	Chemical
133	Appearance	Visual Inspection	Chemical
134	Appearance in solution	Inhouse method	Chemical
135	Appearance for TEG product	Visual Inspection	Chemical
136	TKN as APHA Macro-Kjeldahl Method	APHA 4500-N org	Chemical
137	Hydroxyl Value by Imidazole Catalyst-Phthalic Anh	ASTM D4274-16	Chemical

