

Quality specification UCOME biodiesel (Used Cooking Oil Methyl Esters)

Biodiesel fully complies with EN 14214+A2:2019 quality specifications

Property	Unit	Min	Max	Actual	Test Method
Ester content	% (m/m)	96,5	-	97,3-98,8	EN 14103
Density at 15°C	kg/m ³	860	900	882,9	EN ISO 12185
Viscosity at 40°C	mm ² /s	3,5	5,0	4,4-4,6	EN ISO 3104
Flash point	°C	101	-	160-180	EN ISO 3679
Sulphur content	mg/kg	-	10	3,5-6,0	EN ISO 20884
Cetane number	-	51,0	-	51-52	EN ISO 5165
Sulfated ash content	% (m/m)	-	0,02	<0,005	ISO 3987
Water content	mg/kg	-	300	40-190	EN ISO 12937
Total contamination	mg/kg	-	24	<12	EN 12662
Copper band corrosion (3 hours at 50 °C)	rating	Class 1	-	Class1	EN ISO 2160
Oxidation stability, 110°C	hours	8,0	-	8,5 -14,3	EN 14112
Acid value	mg KOH/g	-	0,50	0,22-0,3	EN 14104
Iodine value	-	-	120	111-118	EN 14111
Linolenic Acid Methyl ester	% (m/m)	-	12,0	9,5-11,5	EN 14103
Polyunsaturated (>= 4 Double bonds) Methyl ester	% (m/m)	-	1,0	<0,6	EN 15779
Methanol content	% (m/m)	-	0,2	0,02-0,06	EN 14110
Cloud point	°C	-	-4	-4...-6	EN ISO 3015
Cold filter plugging point *	°C	-	-13...-26*	-13...-26	EN 116
Monoglyceride content **	% (m/m)	-	0,3-0,7**	0,25-0,7	EN 14105
Diglyceride content	% (m/m)	-	0,2	<0,1	EN 14105
Triglyceride content	% (m/m)	-	0,2	<0,1	EN 14105
Free Glycerol	% (m/m)	-	0,02	0,013	EN 14105
Total Glycerol	% (m/m)	-	0,25	0,11	EN 14105
Group I metal (Na+K)	mg/kg	-	5,0	<2,0	EN 14538
Group II metals (Ca+Mg)	mg/kg	-	5,0	<2,0	EN 14538
Phosphorus content	mg/kg	-	4,0	<4,0	EN14107
Filter blocking tendency	-	-	4,0	<4,0	IP 368 (B)
Palmitic Methyl Ester	% (m/m)	-	6,0	<5,0	EN 14103

*according to summer/winter season and customer requirements

**monoglyceride content depends on customer requirements