



**Castor Oil
Number One Grade**

Value	AOCS
Color, Lovibond (5 1/4"). max.	
20 Y 2.0 R	Cc 13e-92
Free Fatty Acids, max.	
1.00 %	Ca 5a-40
Moiture & Volatile, max.	
0.25 %	Ca 2c-25
Insoluble Impurities, max.	
0.02 %	Ca 3a-46
Hydroxyl Value	
160 - 168	Cd 13-60
Viscosity, Stokes	
6.3 - 8.9	Tq 1a-64
Ricinoleic Acid, min.	
85 %	ISO 5508/5509
Appearance @ 25 Deg. C	
Clear	



**Castor Oil
Pale Pressed Grade**

Value	AOCS
Color, Lovibond (5 1/4"). max.	
10 Y 1.0 R	Cc 13e-92
Free Fatty Acids, max.	
0.75 %	Ca 5a-40
Moiture & Volatile, max.	
0.25 %	Ca 2c-25
Insoluble Impurities, max.	
0.01 %	Ca 3a-46
Hydroxyl Value	
160 - 168	Cd 13-60
Viscosity, Stokes	
6.3 - 8.9	Tq 1a-64
Ricinoleic Acid, min.	
85 %	ISO 5508/5509
Appearance @ 25 Deg. C	
Brilliantly Clear	



**Castor Oil
Extra Pale Grade**

Value	AOCS
Color, Lovibond (5 1/4"). max.	
5 Y 0.8 R	Cc 13e-92
Free Fatty Acids, max.	
0.4 %	Ca 5a-40
Moiture & Volatile, max.	
0.20 %	Ca 2c-25
Insoluble Impurities, max.	
0.01 %	Ca 3a-46
Acid Value, max.	
0.8 %	Cd 3d-63
Odor	
Very Faint	
Ricinoleic Acid, min.	
85 %	ISO 5508/5509
Appearance @ 25 Deg. C	
Brilliantly Clear	



**Linseed Oil
Refined Linseed Oil**

Value	Test Method
Acid value, max., mg KOH/g	
1.0	ISO 660
Iodine colour value, max.	
4	ISO 4630
Gardner colour value	
4	ISO 4630
Iodine acc. min., g Iod/100g	
175	ISO 3961
Refractive index	
1.4785-1.4825	ISO 3960
Saponification, mg KOH/g	
188 - 195	ISO 3657
Viscosity according, dPas	
0.45 - 0.50	ISO 12058-1
Density at 20 C, g/cm3	
0.926 - 0.933	ISO 2811-1



**Linseed Oil
Double Boiled Linseed Oil**

Value	Test Method
Viscosity @ 20 C, dPas	
0.70 - 1.00	ISO 12058-1
Acid value, max., mg KOH/g	
5	ISO 660
Gardner colour value	
8.0 - 12.0	ISO 4630
Refractive index	
1.4810-1.4850	ISO 3960
Saponification value, mg KOH/g	
185 - 200	ISO 3657
Density at 20 C, g/cm3	
0.928-0.950	ISO 2811-1
Water content, max., %	
0.20	ISO 8534
Drying time at 15-20 C	
< 24 hrs	ISO 150



**Linseed Oil
Linseed Stand Oil 120 dPas**

Value	Test Method
Viscosity @ 20 C, dPas	
108-132	ISO 12058-1
Acid value, max., mg KOH/g	
4.0 - 12.0	ISO 660
Gardner colour value	
2.0 - 8.0	ISO 4630
Refractive index	
1.489-1.492	ISO 3960
Saponification value, mg KOH/g	
186 - 200	ISO 3657
Density at 20 C, g/cm3	
0.95 - 0.97	ISO 2811-1
Iodine value acc., g Iod/100g	
100 - 120	ISO 3961
Flash point, min., C	
200	ISO 2592



**Albolith MSC 350
Molecular Sieve Paste**

Value	Test Method
Solids content %	
48.0 - 52.0	ISO 3251
Viscosity, mPas	
< 18000	ISO 2555
Density g/cm3	
1.25	ISO 2811-1
Hydroxyl value, mg KOH/g	
77 - 87	ISO 12966
Dispersing particle size, µm	
max. 50	
Pore size, A	
3	



Castor Meal

Specification and % Content	
Protein	30 -36
Crude Potash	5
Nitrogen	6
Phosphorous	2
Potassium	1



**Hydrogenated Castor Oil
Regular Grade (HCO-R)**

Value	AOCS
Color (Apha) max.	
250	Td 1b-64
Color (Gardner) max.	
2	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25



**Hydrogenated Castor Oil
Premium Grade (HCO-P)**

Value	AOCS
Color (Apha) max.	
150	Td 1b-64
Color (Gardner) max.	
1	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
157	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25



**12 Hydroxy stearic acid
Regular Grade (12H-R)**

Value	AOCS
Color (Apha) max.	
750	Td 1b-64
Color (Gardner) max.	
5	Td 1a-64
Acid Value, or (A.V.) max.	
-	-
Neutralization Value (N.V.)	
175-185	Cd 3d-63
Iodine Value (I.V.) max.	
3	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
180-190	Cd 3-25
Melting Point (M.P.), C;min.	
70	Cc 1-25



**12 Hydroxy stearic acid
Regular Grade (12H-P)**

Value	AOCS
Color (Apha) max.	
350	Td 1b-64
Color (Gardner) max.	
3	Td 1a-64
Acid Value, or (A.V.) max.	
-	-
Neutralization Value (N.V.)	
175-185	Cd 3d-63
Iodine Value (I.V.) max.	
3.0	Tg 1a-64
Hydroxyl (OH.V.) min.	
157	Cd 13-60
Saponification Value (S.V.)	
180-190	Cd 3-25
Melting Point (M.P.), C;min.	
70	Cc 1-25



**N,N' Ethylene Bis
12-Hydroxy steamaide (BISAMIDE)**

Value	AOCS
Color (Gardner) max.	
10	Td 1a-64
Acid Value, or (A.V.) max.	
10	Cd 3d-63
Amine Value, or (Am.V.) max.	
-	Tf 1b-64
Total Amide (T.A.)	
18	Tf 1b-64
Iodine Value (I.V.) max.	
-	-
Hydroxyl (OH.V.) min.	
150	Cd 13-60
Saponification Value (S.V.)	
-	Cd 3-25
Melting Point (M.P.), C;min.	
140	Cc 1-25



**75/25 Blend of HCO/BISAMIDE
(BLEND)**

Value	AOCS
Color (Gardner) max.	
8	Td 1a-64
Acid Value, or (A.V.) max.	
6	Cd 3d-63
Amine Value, or (Am.V.) max.	
2	Tf 1b-64
Total Amide (T.A.)	
-	Tf 1b-64
Iodine Value (I.V.) max.	
-	-
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
130-138	Cd 3-25
Melting Point (M.P.), C;min.	
136-140	Cc 1-25



**HCO - 85099
HCO-R**

Value	AOCS
Color (Apha) max.	
250	Td 1b-64
Color (Gardner) max.	
2	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25
Particle size ; min.	
< 850 µm 99%	Beckman Couter Model LS 100 Q



**12H - 85099
12H-R**

Value	AOCS
Color (Apha) max.	
750	Td 1b-64
Color (Gardner) max.	
5	Td 1a-64
Acid Value, or (A.V.) max.	
-	-
Neutralization Value (N.V.)	
175-185	Cd 3d-63
Iodine Value (I.V.) max.	
3	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
180-190	Cd 3-25
Melting Point (M.P.), C;min.	
70	Cc 1-25
Particle size ; min.	
< 850 µm 99%	Beckman Couter Model LS 100 Q



HCO - 10590
HCO-R

Value	AOCS
Color (Apha) max.	
250	Td 1b-64
Color (Gardner) max.	
2	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25
Particle size ; min.	
< 105 µm 90%	Beckman Couter Model LS 100 Q



HCO - 3299
HCO-R

Value	AOCS
Color (Apha) max.	
250	Td 1b-64
Color (Gardner) max.	
2	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25
Particle size ; min.	
< 32 µm 99%	Beckman Couter Model LS 100 Q



BLD - 3299
BLEND

Value	AOCS
Color (Gardner) max.	
8	Td 1a-64
Acid Value, or (A.V.) max.	
6	Cd 3d-63
Amine Value, or (Am.V.) max.	
2	Tf 1b-64
Total Amide (T.A.)	
-	Tf 1b-64
Iodine Value (I.V.) max.	
-	-
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
130-138	Cd 3-25
Melting Point (M.P.), C;min.	
136-140	Cc 1-25
Particle size ; min.	
< 32 µm 99%	Beckman Couter Model LS 100 Q



HCO - 3000
HCO-R

Value	AOCS
Color (Apha) max.	
250	Td 1b-64
Color (Gardner) max.	
2.0	Td 1a-64
Acid Value, or (A.V.) max.	
2.0	Cd 3d-63
Neutralization Value (N.V.)	
-	-
Iodine Value (I.V.) max.	
2.5	Tg 1a-64
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
175-185	Cd 3-25
Melting Point (M.P.), C;min.	
85	Cc 1-25
Particle size ; min.	
< 30 µm 100%	Beckman Couter Model LS 100 Q



BLD - 3000
BLEND

Value	AOCS
Color (Gardner) max.	
8	Td 1a-64
Acid Value, or (A.V.) max.	
6	Cd 3d-63
Amine Value, or (Am.V.) max.	
2	Tf 1b-64
Total Amide (T.A.)	
-	Tf 1b-64
Iodine Value (I.V.) max.	
-	-
Hydroxyl (OH.V.) min.	
155	Cd 13-60
Saponification Value (S.V.)	
130-138	Cd 3-25
Melting Point (M.P.), C;min.	
136-140	Cc 1-25
Particle size ; min.	
< 30 µm 100%	Beckman Couter Model LS 100 Q



BIS - 3000
BISAMIDE

Value	AOCS
Color (Gardner) max.	
10	Td 1a-64
Acid Value, or (A.V.) max.	
10	Cd 3d-63
Amine Value, or (Am.V.) max.	
-	Tf 1b-64
Total Amide (T.A.)	
18	Tf 1b-64
Iodine Value (I.V.) max.	
-	-
Hydroxyl (OH.V.) min.	
150	Cd 13-60
Saponification Value (S.V.)	
-	Cd 3-25
Melting Point (M.P.), C;min.	
140	Cc 1-25
Particle size ; min.	
< 30 µm 100%	Beckman Couter Model LS 100 Q



Dehydrated Castor Oil
(DCO)

Value	AOCS
Acid Value(A.V.)	
< 2.5	Cd 3d-63
Neutralization Value(N.V.)	
-	Cd 3d-63
Iodine Value (I.V.), cg.I2/g	
125-135	Cd 1d-92
Saponification Value (S.V.)	
189-193	Cd 3-25
Hydroxyl Value (OH.V.)	
< 15	Cd 13-60
Color(GARDNER)	
< G 5	Td 1a-64
Color(APHA)	
-	Td 1b-64
Color After Heating (G)	
-	Td 3a-64
Conjugated Linoleic Acid, %	
27-33	Ti 1a-64
Viscosity(G)	
G-H	Tq 1a-64
Specific Gravity	
-	-



Highly Conjugated
Dehydrated Castor Oil Fatty Acid (HYDIENE)

Value	AOCS
Acid Value(A.V.)	
-	Cd 3d-63
Neutralization Value(N.V.)	
197-203	Cd 3d-63
Iodine Value (I.V.), cg.I2/g	
128-140	Cd 1d-92
Saponification Value (S.V.)	
198-204	Cd 3-25
Hydroxyl Value (OH.V.)	
< 10	Cd 13-60
Color(GARDNER)	
-	Td 1a-64
Color(APHA)	
< 100	Td 1b-64
Color After Heating (G)	
< G 5	Td 3a-64
Conjugated Linoleic Acid, %	
50-60	Ti 1a-64
Viscosity(G)	
-	Tq 1a-64
Specific Gravity	
-	-



Dehydrated Castor Oil Fatty Acid
(DCO-FA)

Value	AOCS
Acid Value(A.V.)	
-	Cd 3d-63
Neutralization Value(N.V.)	
198-203	Cd 3d-63
Iodine Value (I.V.), cg.I2/g	
140-150	Cd 1d-92
Saponification Value (S.V.)	
199-204	Cd 3-25
Hydroxyl Value (OH.V.)	
< 10	Cd 13-60
Color(GARDNER)	
-	Td 1a-64
Color(APHA)	
< 100	Td 1b-64
Color After Heating (G)	
< G 4.5	Td 3a-64
Conjugated Linoleic Acid, %	
35-42	Ti 1a-64
Viscosity(G)	
-	Tq 1a-64
Specific Gravity	
-	-



Ricinoleic Acid
Castor Oil Fatty Acid (CO-FA)

Value	AOCS
Acid Value(A.V.)	
-	Cd 3d-63
Neutralization Value(N.V.)	
175-188	Cd 3d-63
Iodine Value (I.V.), cg.I2/g	
85-95	Cd 1d-92
Saponification Value (S.V.)	
176-190	Cd 3-25
Hydroxyl Value (OH.V.)	
155-167	Cd 13-60
Color(GARDNER)	
< G 7	Td 1a-64
Color(APHA)	
-	Td 1b-64
Color After Heating (G)	
-	Td 3a-64
Conjugated Linoleic Acid, %	
-	Ti 1a-64
Viscosity(G)	
-	Tq 1a-64
Specific Gravity	
Actual Value	-



Poly Ricinoleate-50
(KF5000)

Value	AOCS
Acid Value(A.V.)	
50.5-55.5	Cd 3d-63
Iodine Value(WIJS I HR.)(I.V.)	
89-101	Cd 1d-92
Saponification Value (S.V.)	
180-200	Cd 3-25
Hydroxyl Value (OH.V.)	
21-35	Cd 13-60
Color(GARDNER)	
Max.G 7	Td 1a-64
Mousture, %	
Actual Value	Ca 2e-84
ASH, %	
-	Ca 11-55
Viscosity	
Actual Value	-
Refractive Index	
Actual Value	-
Specific Gravity	
Actual Value	-



Poly Ricinoleate-45
(KF 4500)

Value	AOCS
Acid Value(A.V.)	
42-50	Cd 3d-63
Iodine Value(WIJS I HR.)(I.V.)	
89-101	Cd 1d-92
Saponification Value (S.V.)	
180-200	Cd 3-25
Hydroxyl Value (OH.V.)	
18-32	Cd 13-60
Color(GARDNER)	
Max.G 7	Td 1a-64
Mousture, %	
Actual Value	Ca 2e-84
ASH, %	
-	Ca 11-55
Viscosity	
Actual Value	-
Refractive Index	
Actual Value	-
Specific Gravity	
Actual Value	-



Poly Ricinoleate-34
(KF 3400)

Value	AOCS
Acid Value(A.V.)	
30-38	Cd 3d-63
Iodine Value(WIJS I HR.)(I.V.)	
89-101	Cd 1d-92
Saponification Value (S.V.)	
180-200	Cd 3-25
Hydroxyl Value (OH.V.)	
6-20	Cd 13-60
Color(GARDNER)	
Max.G 7	Td 1a-64
Mousture, %	
Actual Value	Ca 2e-84
ASH, %	
-	Ca 11-55
Viscosity	
Actual Value	-
Refractive Index	
Actual Value	-
Specific Gravity	
Actual Value	-



Poly Glycerol Poly Ricinoleate
(PGPR)

Value	AOCS
Acid Value(A.V.)	
Max. 4	Cd 3d-63
Iodine Value(WIJS I HR.)(I.V.)	
80-95	Cd 1d-92
Saponification Value (S.V.)	
175-185	Cd 3-25
Hydroxyl Value (OH.V.)	
75-100	Cd 13-60
Color(GARDNER)	
Max.G 7	Td 1a-64
Mousture, %	
Actual Value	Ca 2e-84
ASH, %	
Max. 0.5	Ca 11-55
Viscosity	
-	-
Refractive Index	
-	-
Specific Gravity	
-	-