



Innoleo® FSG

(first special grade castor oil / #1 castor oil)

SPECIFICATION

Appearance @ RT
Odor
% Free fatty acid
Acid value, mg KOH/gm
Color, 5 ¼" Lovibond
Hydroxyl value, mg KOH/gm
% Unsaponifiable matter
Viscosity
% Moisture & volatile
Insoluble impurities
Refractive index @20°C
Density @ 15.5°C
Iodine value
Saponification value, mg KOH/gm
Ricinoleic acid*
*glc (iso 5508/5509)
Solubility in alcohol @ 20°C

PARAMETERS

Clear, free of suspended matter
Slight, characteristic
1% max
2.0 max
20.0Y / 2.0R max
160 – 168
1.0 max
6.3 – 8.9 stokes
0.25% max
0.02% max
1.477 – 1.481
0.958 – 0.968 gm/cm³
82 – 90
177 - 185
85% min

Complete without
turbidity in two volumes
of specially denatured
alcohol formula 3a (95%)

Applications/Attributes

- A clear light yellow viscous liquid
- Hydroxylated triglyceride—a unique vegetable oil
- Hydroxyl of the 12th carbon (highly polar)
- Double bond between the 9th & 10th carbon
- 85-90% ricinoleic acid (12-hydroxy stearic acid)
- Natural oil polyol (NOP)
- Soluble in ethanol, chloroform, ether and glacial acetic acid
- Limited solubility in aliphatic petroleum solvents
- Higher oxidative stability than other vegetable oils
- Non-toxic, biodegradable, biorenewable & biosustainable raw material

6320 Intech Way, Indianapolis, IN 46278

Phone: 561-994-8905 or 317-556-1050 | Fax: 561-994-9247 | www.innoleo.com

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Continued

- **Polyurethanes**
 - CASE (coatings, adhesives, sealants & elastomers)
 - Soft & rigid foam
- **Plasticizer for various polymers, elastomers, waxes, natural & synthetic resins**
- **Nonionic surfactants (ethoxylates/propoxylates)**
- **Anionic surfactants (sulfated castor oil)**
- **Lubricants (2-stroke motors)**
- **Pharmaceuticals (drug carrier)**
- **Personal care (facial creams, lotions & lipstick)**
- **Pigments (dispersant)**
- **Castor derivatives are the key component in many biosustainable products**
 - Ink
 - Nylon
 - Biodegradable plastics
 - Lubricants & grease
 - Alkyl & epoxy resins

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