



Lubrajel® Oil

Description:

While all other forms of Lubrajel are defined as *viscous gels*, Lubrajel Oil is a low viscosity liquid. Although the solids content is equal to that of Lubrajel MS, its viscosity is only approximately 1000 cps where Lubrajel MS has a viscosity of greater than 250,000 cps. To differentiate the product from the other grades of Lubrajel it is designated as "Oil." Lubrajel Oil, however, is a very hydrophilic material and should not be construed as being hydrophobic.

Although Lubrajel Oil is an excellent moisture-balancing agent, its most noted property is its remarkably similar feel to silicone oils. This unique property is due to the complexation between the two copolymers. Lubrajel Oil is an excellent lubricant and lends such characteristics as spreadability, moisturization and silky after-feel to creams, lotions and sun care products.

Uses:

Since Lubrajel Oil has a number of beneficial properties, it finds use in a wide variety of products. Primarily, it may be used at concentrations between 3% and 5% in hand lotions for a superior after-feel as well as excellent spreading and a superb feel upon application. Where a washable formulation is desired, Lubrajel Oil may be substituted for silicone oils. The formulation will still have the lubricity and silky feel as observed with formulations containing silicones. A sample formulary is available upon request.

Nomenclature:

CAS: 56-81-5, 9003-01-4, 57-55-6, 9011-16-9
INCI: Glycerin and Glyceryl Acrylate/Acrylic Acid Copolymer and Propylene Glycol and PVM/MA Copolymer
EINECS (Europe): 200-289-5, 201-177-9, 200-338-0, N/A
DSL/NDSL (Canada): 1650, 8957, 1675, 9105
ENCS (Japan): JP 001341, JCIC 108622, JSCI 002328, N/A
AICS (Australia): All components comply

Typical Properties:

These Values are typical properties only and not necessarily specifications. Specifications and test methods are available upon request.

Form	Low Viscosity Liquid
Color	Colorless
Clarity	Clear
pH (22°C, as is)	5.2
Viscosity as is (22°C) (Brookfield DV-II, spindle 3, 50 rpm)	1000 cps
Refractive Index (20 – 24°C)	1.39
% Methylparaben	0.11
% Propylparaben	0.03

Compatibility:

Lubrajel Oil is generally compatible with most non-ionic compounds. Strong acids and bases, as well as oxidizing agents, should be avoided in formulation. The table below indicates compatibility of some surfactants with Lubrajel Oil. As can be seen

from this table, the compatibility of materials with Lubrajel Oil cannot be absolutely defined. There are some non-ionics that are not compatible. There are, surprisingly, some cationic surfactants which exhibit compatibility such as acetamidopropyl trimonium chloride. Other materials that demonstrate compatibility with Lubrajel Oil include ethanol, Polysorbate 80, and sodium cocoamphopropionates.

Lubrajel Oil Compatibility

MATERIAL	PERCENT ADDED	COLOR	CLARITY	VISCOSITY
ETHANOL *	25	N/C	CL	<
	45	N/C	SHZ	<
	75	W	HZ	<
POLYSORBATE 80	5	N/C	CL	N/C
	20	N/C	SHZ	N/C
COCAMIDE DEA	2	W	HZ	N/C
	10	W	HZ	N/C
SODIUM LAURYL ETHER SULFATE	2	N/C	CL	N/A
	10	N/C	CL	<
PEG 100 STEARATE	2	N/C	HZ	<
	10	W	HZ	<
DISODIUM COCAMPHOPROPIONATE	2	N/C	CL	<
	10	N/C	CL	<
ACETAMIDOPROPYL TRIMONIUM CHLORIDE	0.5	N/C	CL	<

* 43% ETHANOL is the critical point for compatibility

Key:

N/C = No Change	W = White
CL = Clear	HZ = Hazy
SHZ = Slightly Hazy	< = Viscosity Drop

Testing:

Lubrajel Oil is characterized as having an excellent toxicological profile. It has an oral LD 50 greater than 5 grams per kilogram, is not irritating to the skin or eyes, and is not a sensitizer. A summary of safety tests performed using Lubrajel Oil is available upon request.

Derivation:

No animal derived ingredients are used in the manufacture of Lubrajel Oil. All raw materials used in Lubrajel Oil are of synthetic or vegetable origin.

Storage and Handling:

Lubrajel Oil is quite stable at room temperature, but does exhibit some loss in viscosity when stored at elevated temperatures (>90°F) for extended periods of time. Store at room temperature and avoid contact with strong acids, alkalis or oxidizing agents.

Avoid exposure to x-rays.

Availability:

Lubrajel Oil is available in 45-pound pails and in 500-pound drums. Lubrajel Oil is also available in a version that incorporates butylene glycol in place of propylene glycol and is called Lubrajel Oil BG.

Contact Guardian Laboratories for information about samples or sales.