



## LUBRASIL™ patented microemulsion

### **Description:**

Silicone oils are extremely important in today's cosmetic formulations. They lend an excellent velvety smooth feel to creams and lotions, hair care products, makeup and powders. Lubrajel is also an extremely important component of the same, lending rheology modification, lubrication and moisture balancing. Combining these two materials would result in a superior product possessing the desirable properties of each, complementing each other in an elegant manner. This, however, is not easily accomplished, since Lubrajel® and silicones are not generally compatible. Although silicone oils may be emulsified into Lubrajel, this takes away from the clarity and colorlessness of the product.

Lubrasil is the unique patented integration of silicone oil (dimethicone) and Lubrajel [Glycerin and Glyceryl Acrylate/Acrylic Acid Copolymer] in which the silicone oil is microemulsified using high energy techniques to form this product.

Lubrasil maintains the characteristics of Lubrajel, including the clarity, lubrication, moisture balancing and viscosification. The characteristics of the dimethicone enhance the Lubrajel by virtually eliminating the "tackiness" associated with formulations employing large concentrations of the material, and it leaves an even softer feel.

Upon application to the skin or hair, the Copolymer/water/dimethicone complex equilibrium is shifted, thereby releasing moisture and silicone. The silicone layer floats on the micro-thin layer of Lubrajel facilitating moisturization by altering the kinetics of the moisture flux or transepidermal water loss (TEWL).

### **Uses:**

Lubrasil is used in skin care products at levels between 5 and 40% and may be used in hair care products such as styling gels at similar concentrations.

Lubrasil is compatible to varying degrees with nonionic surfactants, some anionic surfactants, and most water-soluble or dispersible materials that are not highly ionized.

### **Nomenclature:**

CAS: 56-81-5, 9003-01-4, 9005-64-5, 541-02-6, 556-67-2, 57-55-6, 31692-79-2  
INCI: Glycerin and Glyceryl Acrylate/Acrylic Acid Copolymer and Polysorbate 20 and Cyclopentasiloxane and Cyclotetrasiloxane and Propylene Glycol and Dimethiconol  
EINECS (Europe): 200-289-5, 201-177-9, N/A, 208-764-9, N/A, 200-338-0, N/A  
DSL/NDSL (Canada): 1650, 8957, 9055, 4415, 4520, 1675, N/A  
ENCS (Japan): JSCI 001223, JCIC 108622, JCIC 109916, N/A, N/A, 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	Viscous Gel
Color	Colorless
Appearance @ 20-25°C	Clear to slightly hazy
pH (neat) @ 20-25 °C	5.3
Viscosity, @ 20-25°C (Brookfield DV-II, spindle 7, 50 rpm)	30,000 cps
Refractive Index @ 20-25°C	1.397
% Methylparaben	0.102
% Propylparaben	0.028

### **Testing:**

United-Guardian has not performed any animal testing on Lubrasil.

### **Derivation:**

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

### **Storage and Handling:**

Lubrasil is a very slippery material and proper care should be taken in its handling and use. Avoid contact with strong acids, alkalis or oxidizing agents.

Avoid exposure to x-rays.

### **Availability:**

Lubrasil is available in 45-pound pails and 500-pound drums.

Contact Guardian Laboratories for information about samples or sales.

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