

## Topical IID-Listed Ingredients for Sensory Optimization

Patient compliance remains an issue with current topical drug product options, with average adherence rates to therapies estimated at only 25-35%<sup>1</sup>. This low adherence to treatments can not only harm patient outcomes but also contributes to losses in product sales (~40%)<sup>2</sup>, both of which are important considerations for pharmaceutical manufacturers.

A leading cause of patient non-compliance is poor product attributes, including suboptimal cosmetic and sensory characteristics<sup>3</sup>. Therefore, **designing a topical product with ideal** sensory properties is critical for patient compliance and commercial success.

Table 1: Lubrizol's IID-listed emollients, emulsifiers, and humectants

Trade name	Chemical name	
Emollient		
Schercemol™ LL ester	Lauryl Lactate	
Schercemol™ DIA ester	Diisopropyl Adipate	
Schercemol™ 318 ester	Isopropyl Isostearate	
Schercemol™ OHS ester	Ethylhexyl Hydroxystearate	
Schercemol™ GMIS ester	Glyceryl Isostearate	
Schercemol™ OLO ester	Oleyl Oleate	
Schercemol™ 1688 ester	Cetearyl Ethylhexanoate	
Glucam™ P-20 distearate emollient	PPG-20 Methyl Glucose Ether Distearate	
Solulan™ 75 (Solulan™ L-575) lanolin derivative	PEG-75 Lanolin	
Vilvanolin™ L-101 lanolin derivative	Mineral Oil (and) Lanolin Alcohol	
Emulsifiers		
Glucate™ SS emulsifier	Methyl Glucose Sesquistearate	
Glucamate™ SSE-20 emulsifier	PEG-20 Methyl Glucose Sesquistearate	
Promulgen™ D nonionic emulsifier	Cetearyl Alcohol (and) Ceteareth 20	
Promulgen™ G nonionic emulsifier	Stearyl Alcohol (and) Ceteareth 20	
Humectants		
Glucam™ E-10 humectant	Methyl Gluceth-10	
Glucam™ E-20 humectant	Methyl Gluceth-20	



One of the best ways to enhance sensory properties is by **formulating** with proven non-irritating ingredients developed to optimize the feel, absorption, and appearance of a topical product.

In addition to our Carbopol®, Noveon®, and Pemulen™ polymers, Lubrizol also offers IID-listed emollients, emulsifiers, and humectants specifically designed to instill ideal sensory properties to a formulation (Table 1). Further, some of these ingredients offer benefits in improving stability and performance of topical product formulations, such as through permeation enhancement.

These cosmetic-grade ingredients are listed on the FDA's inactive ingredient database (IID) for topical and/or transdermal administration. They also have a long history of use in over-the-counter and prescription drug products.

## **References:**

- Practice Gaps-Failure to Maximize Patient Adherence Strategies in Clinical Practice | Treatment Adherence | JAMA Dermatology | JAMA Network
- 2. Patient Compliance The Next Challenge In Health Care Innovation Healthcare Business Today
- 3. 2017 study, published in the Journal of the European Academy of Dermatology and Venereology



## The possibilities are endless

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Table 2: Commercial Drug Products
Formulated with IID-Listed Emollients

API	Dosage form
Azelaic acid	Cream
Buprenorphine	Patch
Capsaicin	Cream
Efinaconazole	Solution
Erythromycin	Ointment (eye)
Ethinyl estradiol	Patch
Fluorouracil	Cream
Halobetasol propionate	Cream
Hydrocortisone acetate	Lotion
Miconazole nitrate	Wipe
Norelgestromin	Patch
Tazarotene	Foam
Testosterone	Gel
Tretinoin	Gel
Triamcinolone acetonide	Ointment

Table 3: Commercial Drug Products
Formulated with IID-Listed Emulsifiers

API	Dosage form
Adapalene	Cream
Clobetasol propionate	Lotion
Halcinonide	Cream
Hydroquinone	Cream
Mometasone furoate	Cream
Triamcinolone acetonide	Cream

Table 4: Commercial Products
Formulated with IID-Listed Humectants

API	Dosage form
Fluocinolone acetonide	Cream
Fluorouracil	Cream
Hydroquinone	Cream
Tretinoin	Cream



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