ACCI SPECIALTY MATERIALS

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AMINOPEARL® LL

LAUROYL LYSINE

The tactile character of a substance is exceedingly important in cosmetic applications. Those exhibiting a very smooth, soft, silky feeling are much preferred for skin, hair and make-up applications.

To a large extent, the tactile qualities of a substance are determined by the nature of its intra- and intermolecular bonding. Graphite is a classical illustration of this fact

Chemical Name: N^6-Lauroyl-L-lysine [CAS# 052315-75-0]

Other Names:

Lauroyl lysine; N6-Lauroyl-L-lysine; L-Lysine, N6-(1-oxododecyl)-; N6-(1-Oxododecyl)-L-lysine, lauryl lysine

CHARACTERISTICS

Universally acknowledged as a substance possessing an extremely smooth feeling – so smooth, in fact, that is now commonly used as a lubricant –tactile qualities are a direct consequence of its planar molecular (platelet) structure. The virtual absence of intermolecular bonding between these planes which, in turn, allows the planes the slides to slide over each other with facility resulting in apparent lubricity.

Not surprisingly, substances that exhibit a platelet morphology similar to graphite's are likely to also share a similar tactile character. AMINOPEARL®, LL, Lauroyl lysine is one such substance.

Lauroyl lysine's tactile qualities are further enhanced by its peptide-like molecular composition since the molecule is made by a condensation of the amino acid L-Lysine and Dodecoic Acid (Lauric Acid) thus giving it a very skin-like feel.

In addition to its high lubricity, low frictional coefficient, and skin-like tactile qualities, Lauroyl lysine also:

Exhibits excellent adhesive properties

Imparts hydrophobicity to hydrophilic powders (silica, titanium oxide, etc.)

Improves fluidity of an oil/powder mixture by reducing oil adsorption

Exhibits good anti-static and anti-autoxidation properties

MAJOR APPLICATIONS

The unique properties of AMINOPEARL® LL, make it ideal for a variety of personal care/cosmetic applications.

AMINOPEARL® LL has use as a surface modifier for inorganic substances (kaolin, diatomaceous earth, calcium carbonate, talc, titanium oxide, zinc oxide, silica, pigments, etc.) for the purpose of improving wettability, enhancing dispersibility, repressing surface activity, etc, LL's properties make it excellent for use in eye shadows; facial powders; lipsticks; foundations; blush; products with spf; bronzer/highlighter; concealer; and mascara. LL is used in hair and skin conditioning agents, by contributing to a product's texture giving it a silky feel.

Additionally, AMINOPEARL® LL PASTE, a water based dispersion of Aminopearl® LL, available from ACCI Specialty Materials is used as a foam stabilizer for shampoos.

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BIODEGRADABILITY

AMINOPEARL® LL exhibits excellent biodegradability (derived from all-natural, non-animal components)

Exceedingly safe

MATERIAL INFORMATION

Trade Name	Chemical Name	CTFA INCI Name	CAS No.	Appearance	Packaging
AMINOPEARL® LL	N^6-Lauroyl-L-lysine	Lauroyl Lysine	052315-75-0	White powder	various