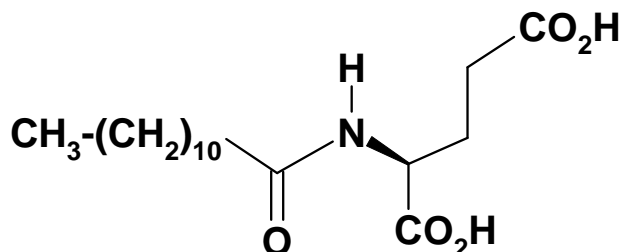


N-Lauroyl-L-Glu

N-Lauroyl-L-glutamic Acid



N-Acylamino acids and salts thereof are generally recognized as mild, natural surfactants possessing useful foaming good washing abilities. [H.P. Fiedler, "Lexikon der Hilfsstoffe für Pharmazie, Kosmetik und angrenzende Gebiete," 4th Ed., p. 108, keyword N-Acetylglutaminsäure]. Similarly, a Japanese study entitled "Surface-Active N-Acetylglutamates: Long-Chain N-Acetylglutamic Acids," [M. Takehara, I. Yoshimura, K. Takizawa, and R. Yoshida, *J. Amer. Oil Chemists' Soc.*, **49**, 157 (1964)] cites a patent [JP 29,444 (1964)] which reports that N-Acetylglutamates are capable of alleviating skin irritation caused by other anionic surfactants such as alkylbenzenesulfonates and Sodium Lauryl Sulfate. In a much later, but closely related observation, [US 2002/0028188], it was demonstrated that admixing 1.5% of N-Lauroyl-L-glutamic Acid, N-Lauroyl-L-Glu, with the surfactant Lauryl Ether Sulfonate (LES), reduced the level of skin adsorbed irritant (LES) by as much as 31%.

A condensation product of L-Glutamic Acid and Lauric Acid (n-Dodecanoic Acid), N-Lauroyl-L-Glu exhibits a variety of cosmetically useful properties that include it being

- Very mild, hypo-allergenic and non-comedogenic.
- Exceedingly biodegradable.
- Derived from all-natural, non-animal components.
- An excellent cleanser, even in hard water
- Weak acidity in solution (similar to human skin).
- A gentle cleanser for skin and hair, leaving it soft, moisturized and feeling conditioned.
- Suitable for use in either bar, paste, foam, powder or gel formulations.
- Functional utility over a broad pH range of ~ 4.5 to ~ 12.5.

Applications

The unique properties of N-Lauroyl-L-Glu make it ideal for a broad range of personal care/cosmetic applications, including

- Liquid soap, paste and powdered cleansers
- Facial care: facial cleansers, facial washing foams and make-up removers
- Baby and geriatric care: incontinent washes, baby cleansers
- Health care
- Body care: body wash, bath foams

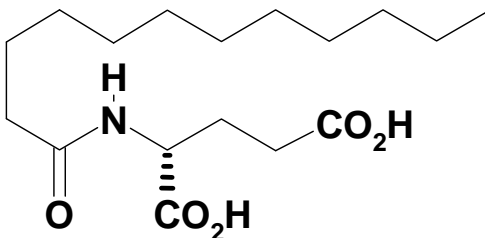
Product Specifications

Names: N-Lauroyl-L-glutamic Acid

Syn: N-Lauroyl-L-Glu

CAS Number: 3397-65-7

Structure:



Mol. Formula C₁₇H₃₁NO₅

Mol Weight: 329.43

Test

Specification

Identity

Infrared

Appearance

White to off-white solid
with characteristic faint odor

Mp

101-102 °C (98.6 °C by DSC[‡])

Assay (hplc)

≥ 99%

Heavy Metals (Pb, As)

< 20 ppm

Ash

< 0.5%

LOD

< 1 %

[‡] A typical DSC plot for N-Lauroyl-L-glutamic Acid is shown on the next page.

