

10 Typical Properties

Solubility Soluble in diethyl ether and in cyclohexane, with the separation of water; practically insoluble in chloroform, ether, and water.

11 Stability and Storage Conditions

Hydrous lanolin should be stored in a well-filled, well-closed container protected from light, in a cool, dry place. Normal storage life is 2 years. It is a stable material and does not become rancid.
See also Lanolin.

12 Incompatibilities

See Lanolin.

13 Method of Manufacture

Lanolin is melted, and sufficient purified water is gradually added with constant stirring.

14 Safety

Hydrous lanolin is used in cosmetics and a number of topical pharmaceutical formulations and is generally regarded as a nontoxic and nonirritant material, although it has been associated with hypersensitivity reactions. See Lanolin for further information.

15 Handling Precautions

Observe normal precautions appropriate to the circumstances and quantity of material handled.

16 Regulatory Status

Included in nonparenteral medicines licensed in the UK. Included in the Canadian Natural Health Products Ingredients Database.

17 Related Substances

Lanolin; lanolin alcohols.

18 Comments

Lanolin (the anhydrous material) may be confused in some instances with hydrous lanolin since the USP formerly contained monographs for 'lanolin' and 'anhydrous lanolin' in which the name 'lanolin' referred to the material containing 25–30% w/w of purified water.

Therapeutically, hydrous lanolin is used in burns dressings to support the wound healing process and enhance dermal repair. It has also been used for treatment of chapped lips, cracked hands, sore nipples, and diaper rash.

19 Specific References

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20 General References

Barnett G. Lanolin and derivatives. *Cosmet Toilet* 1986; 101(3): 23–44.
Osborne DW. Phase behavior characterization of ointments containing lanolin or a lanolin substitute. *Drug Dev Ind Pharm* 1993; 19: 1283–1302.
Smolinske SC. *Handbook of Food, Drug, and Cosmetic Excipients*. Boca Raton, FL: CRC Press, 1992; 225–229.

21 Authors

HC Shah, KK Singh.

22 Date of Revision

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Lauric Acid

1 Nonproprietary Names

USP–NF: Lauric Acid

2 Synonyms

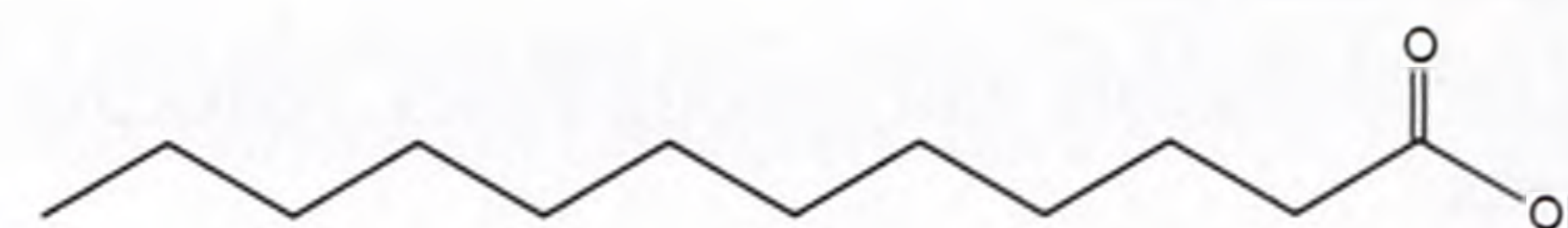
C-1297; dodecanoic acid; 1-dodecanoic acid; *n*-dodecanoic acid; dodecoic acid; dodecylic acid; duodecylic acid; *Hydrofol acid* 1255; *Hydrofol acid* 1295; *Hystrene* 9512; *Kortacid* 1299; laurostearic acid; *Lunac* L70; *Neo-fat* 12; *Neo-fat* 12–43; *Ninol AA62 Extra*; *Prifac* 2920; 1-undecanecarboxylic acid; *Univol* U314; vulvic acid; *Wecoline* 1295.

3 Chemical Name and CAS Registry Number

Dodecanoic acid [143-07-7]

4 Empirical Formula and Molecular Weight

C₁₂H₂₄O₂ 200.32

5 Structural Formula**6 Functional Category**

Anionic surfactant; antifoaming agent; emulsifying agent; lubricant; penetration enhancer.

7 Applications in Pharmaceutical Formulation or Technology

Lauric acid has been used as an enhancer for topical penetration and transdermal absorption,^(1–12) rectal absorption,^(13,14) buccal delivery,⁽¹⁵⁾ and intestinal absorption.^(16,17) It is also useful for stabilizing oil-in-water emulsions.⁽¹⁸⁾

8 Description

Lauric acid occurs as a white crystalline powder with a slight odor of bay oil.