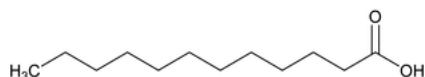


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Lauric Acid



$C_{12}H_{24}O_2$ 200.32

Dodecanoic acid;

1-Dodecanoic acid;

1-Undecanecarboxylic acid;

n-Dodecanoic acid CAS RN®: 143-07-7.

DEFINITION

Lauric Acid contains NLT 98.0% and NMT 102.0% of dodecanoic acid ($C_{12}H_{24}O_2$), calculated on the anhydrous basis.

IDENTIFICATION

Change to read:

- **A.** ▲ [SPECTROSCOPIC IDENTIFICATION TESTS \(197\)](#), [Infrared Spectroscopy: 197K](#) ▲ (CN 1-MAY-2020)
- **B.** The retention time of the major peak of the *Sample solution* corresponds to that of the *Standard solution*, as obtained in the Assay.

ASSAY

• PROCEDURE

Solvent A: 0.1% (v/v) trifluoroacetic acid in water

Mobile phase: Acetonitrile and Solvent A (85:15, v/v)

Standard solution: 15 mg/mL of [USP Lauric Acid RS](#) in *Mobile phase*

Sample solution: 15 mg/mL of Lauric Acid in *Mobile phase*

Chromatographic system

(See [Chromatography \(621\)](#), [System Suitability](#).)

Mode: LC

Detector: UV 212 nm

Column: 4.6-mm × 15-cm analytical; 5-μm packing L1

Column temperature: Ambient

Flow rate: 1.0 mL/min

Injection volume: 10 μL

System suitability

Sample: *Standard solution*

Suitability requirements

Relative standard deviation: NMT 3.0%, *Standard solution*

Analysis

Samples: *Standard solution* and *Sample solution*

Calculate the percentage of lauric acid ($C_{12}H_{24}O_2$) in the portion of Lauric Acid taken:

$$\text{Result} = (r_U/r_S) \times (C_S/C_U) \times 100$$

r_U = peak response of lauric acid from the *Sample solution*

r_S = peak response of lauric acid from the *Standard solution*

C_S = concentration of [USP Lauric Acid RS](#) in the *Standard solution* (mg/mL)

C_U = concentration of Lauric Acid in the *Sample solution* (mg/mL)

Acceptance criteria: 98.0%–102.0% on the anhydrous basis

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#).

Sample: 10 g

Acceptance criteria: NMT 0.1%

SPECIFIC TESTS

- [FATS AND FIXED OILS, Iodine Value \(401\)](#): NMT 3.0
- [FATS AND FIXED OILS, Peroxide Value \(401\)](#): NMT 10.0
- [WATER DETERMINATION, Method Ia \(921\)](#): NMT 0.2%

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in well-closed containers. Store at room temperature.
- [USP REFERENCE STANDARDS \(11\)](#).
[USP Lauric Acid RS](#)

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
LAURIC ACID	Documentary Standards Support	SE2020 Simple Excipients

Chromatographic Database Information: [Chromatographic Database](#)

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