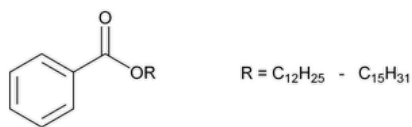


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Alkyl (C12–15) Benzoate



C₂₀H₃₂O₂ 304.47 (average)
 Benzoic acid, C12–15 alkyl ester CAS RN[®]: 68411-27-8.

DEFINITION

Alkyl (C12–15) Benzoate consists of esters of a mixture of C12 to C15 primary and branched alcohols and benzoic acid.

IDENTIFICATION

- **A.** Infrared absorption spectrum, obtained by spreading a capillary film of it between sodium chloride plates, exhibits maxima at 2800 cm⁻¹ (broad); 2950 cm⁻¹ (broad); 1730 cm⁻¹ (medium, sharp); 1270 cm⁻¹ (medium, sharp); and 710 cm⁻¹ (medium, sharp).

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.5%

SPECIFIC TESTS

- [WATER DETERMINATION, Method I \(921\)](#): NMT 0.3%
- [SPECIFIC GRAVITY \(841\)](#): 0.915–0.935
- [FATS AND FIXED OILS, Acid Value \(401\)](#): NMT 0.5
- [REFRACTIVE INDEX \(831\)](#): 1.483–1.487 at 20°
- [FATS AND FIXED OILS, Saponification Value \(401\)](#)

Sample: 2 g of Alkyl (C12–15) Benzoate

Analysis: Transfer the *Sample* to a 200-mL flask. Proceed as directed in the chapter, except use 50.0 mL of 0.5 N alcoholic potassium hydroxide VS instead of 25.0 mL, maintaining reflux for 2 h instead of 30 min, and rinsing the reflux condenser with 25 mL of water after the reflux period.

Acceptance criteria: 169–182

- [VISCOSITY—ROTATIONAL METHODS \(912\)](#)

Sample: 500 mL

Analysis: Transfer the *Sample* to a 600-mL tall-form beaker, and adjust the temperature to 25 ± 0.1°. Using a suitable rotational viscometer with a spindle having a cylinder 5.63 cm in diameter and 2.25 cm in height attached to a shaft 0.32 cm in diameter, the distance from the top of the cylinder to the lower tip of the shaft being 2.91 cm, and the immersion depth being 6.11 cm (No. 1 spindle), operate the viscometer at 100 rpm for 60 s, accurately timed, and record the scale reading. Convert the scale reading to centipoises by multiplying by the constant for the spindle and speed used.

Acceptance criteria: The average of three viscosities obtained is NMT 100 centipoises.

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in tight, light-resistant containers.

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

Topic/Question	Contact	Expert Committee
ALKYL (C12-15) BENZOATE	Documentary Standards Support	CE2020 Complex Excipients

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. Information currently unavailable

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