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Flexible Collodion

DEFINITION
Prepare Flexible Collodion as follows.

Camphor	20 g
Castor Oil	30 g
Collodion, a sufficient quantity to make	1000 g

Weigh the ingredients, successively, into a dry, tared bottle. Insert the stopper in the bottle, and shake the mixture until the *Camphor* is dissolved.

IDENTIFICATION

- **A.**

Analysis: Expose a thin layer to air, leaving a transparent, tenacious film.

Acceptance criteria: The film exhibits a distinct odor of camphor. The film of pyroxylin so obtained burns rapidly with a yellow flame.

- **B.**

Analysis: Mix with an equal volume of water.

Acceptance criteria: A viscid, stringy mass of pyroxylin is produced.

OTHER COMPONENTS

- **Alcohol Determination ⟨611⟩**

Internal standard solution: Acetone and 1,2-dichloro ethane (20:80) in a glass-stoppered, graduated cylinder

Standard stock solutions: Transfer 10-, 20-, and 30-mL portions of dehydrated alcohol into separate 100-mL volumetric flasks, dilute with 1,2-dichloroethane to volume, and mix.

Standard solutions: Mix 10 mL of each *Standard stock solution* with 15 mL of 1,2-dichloroethane, 10 mL of hexane, and 10.0 mL of *Internal standard solution* in separate, glass-stoppered, 50-mL graduated cylinders.

Sample solution: To 10 mL of Flexible Collodion in a glass-stoppered, 50-mL graduated cylinder add 15 mL of 1,2-dichloroethane, 10 mL of hexane, and 10.0 mL of *Internal standard solution*. Mix, and allow the precipitate to settle.

Chromatographic system

(See *Chromatography ⟨621⟩, System Suitability*.)

Mode: GC

Detector: Thermal conductivity

Column: 1.8-m × 3.5-mm glass; support S3

Temperatures

Column: 150°

Injection port: 200°

Detector: 250°

Carrier gas: Helium

Flow rate: 50 mL/min

Injection volume: 4 µL

Analysis

Samples: *Standard solutions* and *Sample solution*

Calculate the relative response factor, *F*, for each *Standard solution* taken:

$$F = C_S/R_S$$

C_S = concentration of alcohol in the *Standard solution*, as a percentage (v/v)

R_S = peak response ratio of alcohol to acetone from the respective *Standard solution*

Calculate the percentage of alcohol (C_2H_5OH) in the portion of Flexible Collodion taken:

$$\text{Result} = R_U \times F_A$$

R_U = peak response ratio of alcohol to acetone from the *Sample solution*

F_A = average of the individual *F* values

Acceptance criteria: 21.0%–25.0%

SPECIFIC TESTS

• **Specific Gravity ⟨841⟩:** 0.770–0.790

ADDITIONAL REQUIREMENTS

• **Packaging and Storage:** Package in tight containers, at a temperature not exceeding 30°, remote from fire.

• **Labeling:** The label bears a caution statement to the effect that Flexible Collodion is highly flammable.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
FLEXIBLE COLLODION	Brian Serumaga Science Program Manager	CMP2020 Compounding 2020

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
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