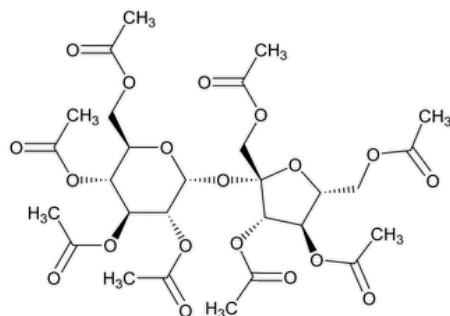


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Sucrose Octaacetate



$C_{28}H_{38}O_{19}$ 678.59
 α -D-Glucopyranoside, 1,3,4,6-tetra-O-acetyl- β -D-fructofuranosyl, tetraacetate;
 Octaacetyl sucrose CAS RN®: 126-14-7.

DEFINITION

Sucrose Octaacetate contains NLT 98.0% and NMT 100.5% of sucrose octaacetate ($C_{28}H_{38}O_{19}$), calculated on the anhydrous basis.

IDENTIFICATION

Change to read:

- A. [▲ SPECTROSCOPIC IDENTIFICATION TESTS \(197\), Infrared Spectroscopy: 197K ▲](#) (CN 1-MAY-2020)

ASSAY

• PROCEDURE

Sample: 100 mg in a 500-mL conical flask

Blank: 50 mL of 70% alcohol

Titrimetric system

(See [Titrimetry \(541\)](#).)

Mode: Residual titration

Titrant: 0.1 N sodium hydroxide VS

Back-titrant: 0.1 N sulfuric acid VS

Endpoint detection: Visual

Analysis: Dissolve the *Sample* in 50 mL of 70% alcohol. Neutralize the solution with 0.1 N sodium hydroxide VS using phenolphthalein TS as the indicator. Add 25.0 mL of 0.1 N sodium hydroxide VS, attach an air condenser to the flask, protect from absorption of carbon dioxide, and reflux on a steam bath for 1 h. Remove from the steam bath, cool quickly, and titrate the excess alkali with 0.1 N sulfuric acid VS using phenolphthalein TS as the indicator. Perform a blank determination.

Calculate the percentage of sucrose octaacetate ($C_{28}H_{38}O_{19}$) in the portion of Sucrose Octaacetate taken. Each mL of 0.1 N sodium hydroxide is equivalent to 8.483 mg of sucrose octaacetate ($C_{28}H_{38}O_{19}$).

Acceptance criteria: 98.0%–100.5% on the anhydrous basis

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.1%

SPECIFIC TESTS

- [MELTING RANGE OR TEMPERATURE \(741\)](#): NLT 78°

• ACIDITY

Sample: 1 g

Analysis: Dissolve the *Sample* in 20 mL of neutralized alcohol, and add 2 drops of phenolphthalein TS.

Acceptance criteria: NMT 2 drops of 0.1 N sodium hydroxide are required to produce a red color.

- [WATER DETERMINATION, Method I \(921\)](#): NMT 1.0%

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in tight containers.
- [USP REFERENCE STANDARDS \(11\)](#)
[USP Sucrose Octaacetate RS](#)

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

Topic/Question	Contact	Expert Committee
SUCROSE OCTAACETATE	Documentary Standards Support	SE2020 Simple Excipients
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SE2020 Simple Excipients

Chromatographic Database Information: [Chromatographic Database](#)

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