

Status: Currently Official on 16-Feb-2025
Official Date: Official Prior to 2013
Document Type: USP Monographs
DocId: GUID-38304FB5-887F-4AD2-B966-C559EFDB33CD_1_en-US
DOI: https://doi.org/10.31003/USPNF_M75340_01_01
DOI Ref: ut608

© 2025 USPC
Do not distribute

Silver Nitrate Ophthalmic Solution

DEFINITION

Silver Nitrate Ophthalmic Solution is a solution of Silver Nitrate in a water medium. It contains NLT 0.95% and NMT 1.05% of silver nitrate (AgNO_3). The solution may be buffered by the addition of Sodium Acetate.

IDENTIFICATION

- **A. IDENTIFICATION TESTS—GENERAL, [Silver\(191\)](#) and [Nitrate\(191\)](#):** Meets the requirements

ASSAY

• **PROCEDURE**

Sample solution: Place 5 mL of Ophthalmic Solution in a conical flask, dilute with 20 mL of water, and add 1 mL of nitric acid and 1 mL of ferric ammonium sulfate TS.

Titrimetric system

Mode: Direct titration

Titrant: 0.02 N ammonium thiocyanate VS

Endpoint detection: Visual

Analysis: Titrate the *Sample solution* with *Titrant*. Each mL of 0.02 N ammonium thiocyanate is equivalent to 3.397 mg of silver nitrate (AgNO_3).

Acceptance criteria: 0.95%–1.05%

SPECIFIC TESTS

- **CLARITY AND COLOR OF SOLUTION:** Clear and colorless
- **[pH \(791\)](#):** 4.5–6.0
- **[STERILITY TESTS \(71\)](#):** Meets the requirements

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve it protected from light, in inert, collapsible capsules or in other suitable single-dose containers.

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

Topic/Question	Contact	Expert Committee
SILVER NITRATE OPHTHALMIC SOLUTION	Documentary Standards Support	SM12020 Small Molecules 1
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM12020 Small Molecules 1

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. Information currently unavailable

Current DocID: GUID-38304FB5-887F-4AD2-B966-C559EFDB33CD_1_en-US

DOI: https://doi.org/10.31003/USPNF_M75340_01_01

DOI ref: [ut608](#)