

Status: Currently Official on 16-Feb-2025
Official Date: Official as of 01-Jan-2018
Document Type: USP Monographs
DocID: GUID-215E6D96-F083-4312-934F-ECF1C9965DCD_3_en-US
DOI: https://doi.org/10.31003/USPNF_M75730_03_01
DOI Ref: jac1k

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Sodium Acetate Solution

» Sodium Acetate Solution is an aqueous solution of Sodium Acetate. It contains not less than 97.0 percent and not more than 103.0 percent (w/w) of the labeled amount of $C_2H_3NaO_2$.

Packaging and storage—Preserve in tight containers.

Identification—It responds to the tests for [Sodium \(191\)](#) and for [Acetate \(191\)](#).

pH (791): between 7.5 and 9.2, when diluted with carbon dioxide-free water to contain 5% of solids.

Insoluble matter—Dilute a quantity of Solution, equivalent to 20 g of anhydrous sodium acetate, with water to 150 mL, heat to boiling, and digest in a covered beaker on a steam bath for 1 hour. Filter through a tared filtering crucible, wash thoroughly, and dry at 105°: the weight of the residue does not exceed 1 mg (0.005%).

CHLORIDE (221)—A quantity of Solution, equivalent to 1.0 g of anhydrous sodium acetate, shows no more chloride than corresponds to 0.50 mL of 0.020 N hydrochloric acid (0.035%).

SULFATE (221)—A quantity of Solution, equivalent to 10 g of anhydrous sodium acetate, shows no more sulfate than corresponds to 0.50 mL of 0.020 N sulfuric acid (0.005%).

Calcium and magnesium—Dilute a quantity of Solution, equivalent to 1.0 g of anhydrous sodium acetate, to 100 mL with water. To 20 mL of this solution add 2 mL each of 6 N ammonium hydroxide, ammonium oxalate TS, and sodium phosphate TS: no turbidity is produced within 5 minutes.

Potassium—To a quantity of Solution, equivalent to 3.0 g of anhydrous sodium acetate, add 0.2 mL of sodium bitartrate TS: no turbidity is produced within 5 minutes.

Assay—Weigh accurately about 1 g of Solution into a 250-mL conical flask, cautiously add (in a fume hood) 2.6 mL of acetic anhydride, mix, and allow to stand for 5 minutes. Add 25 mL of glacial acetic acid and 2 drops of *p*-naphtholbenzein TS, and titrate with 0.1 N perchloric acid VS. Perform a blank determination, using 0.5 mL of water, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 8.203 mg of $C_2H_3NaO_2$.

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

Topic/Question	Contact	Expert Committee
SODIUM ACETATE SOLUTION	Documentary Standards Support	SM52020 Small Molecules 5
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM52020 Small Molecules 5

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. PF 44(6)

Current DocID: GUID-215E6D96-F083-4312-934F-ECF1C9965DCD_3_en-US

Previous DocID: GUID-215E6D96-F083-4312-934F-ECF1C9965DCD_1_en-US

DOI: https://doi.org/10.31003/USPNF_M75730_03_01

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