

**SODIUM CITRATE AND CITRIC ACID- sodium citrate and citric acid monohydrate solution**  
**Cardinal Health 107, LLC**

*Disclaimer: This drug has not been found by FDA to be safe and effective, and this labeling has not been approved by FDA. For further information about unapproved drugs, click here.*

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**Sodium Citrate and Citric Acid Oral Solution USP**

A Sugar-Free Systemic Alkalizer

**DESCRIPTION**

Sodium Citrate and Citric Acid Oral Solution USP is a stable and pleasant-tasting systemic alkalizer containing sodium citrate and citric acid in a sugar-free base. It is a nonparticulate neutralizing buffer.

Sodium Citrate and Citric Acid Oral Solution USP contains in each teaspoonful (5 mL):

SODIUM CITRATE Dihydrate 500 mg (0.34 Molar)

CITRIC ACID Monohydrate 334 mg (0.32 Molar)

Each mL contains 1 mEq sodium ion and is equivalent to 1 mEq bicarbonate (HCO<sub>3</sub>).

INACTIVE INGREDIENTS: Flavoring, polyethylene glycol, propylene glycol, purified water, sodium benzoate, and sorbitol solution.

**CLINICAL PHARMACOLOGY**

Sodium citrate is absorbed and metabolized to sodium bicarbonate, thus acting as a systemic alkalizer. The effects are essentially those of chlorides before absorption and those of bicarbonates subsequently. Oxidation is virtually complete so that less than 5% of sodium citrate is excreted in the urine unchanged.

**INDICATIONS AND USAGE**

Sodium Citrate and Citric Acid Oral Solution USP is an effective alkalinizing agent. It is useful in those conditions where long-term maintenance of an alkaline urine is desirable, and is of value in the alleviation of chronic metabolic acidosis, such as results from chronic renal insufficiency or the syndrome of renal tubular acidosis, especially when the administration of potassium salts is undesirable or contraindicated. This product is also useful for buffering and neutralizing gastric hydrochloric acid quickly and effectively.

Sodium Citrate and Citric Acid Oral Solution USP is concentrated, and when administered after meals and before bedtime, allows one to maintain an alkaline urinary pH around the clock, usually without the necessity of a 2 A.M. dose. This product alkalinizes the urine without producing a systemic alkalosis in the recommended dosage. This product is highly palatable, pleasant tasting, and tolerable, even when administered for long periods.

## **CONTRAINDICATIONS**

Patients on sodium-restricted diets or with severe renal impairment.

## **PRECAUTIONS**

Sodium Citrate and Citric Acid Oral Solution USP should be used with caution by patients with low urinary output unless under the supervision of a physician. This product should not be administered concurrently with aluminum-based antacids. Patients should be directed to dilute adequately with water and preferably, to take each dose after meals to avoid saline laxative effect. Sodium salts should be used cautiously in patients with cardiac failure, hypertension, impaired renal function, peripheral and pulmonary edema, and toxemia of pregnancy. Periodic examinations and determinations of serum electrolytes, particularly serum bicarbonate level, should be carried out in those patients with renal disease in order to avoid these complications.

## **ADVERSE REACTIONS**

Sodium Citrate and Citric Acid Oral Solution USP is generally well tolerated, without any unpleasant side effects, when given in recommended doses to patients with normal renal function and urinary output. However, as with any alkalinizing agent, caution must be used in certain patients with abnormal renal mechanisms to avoid development of alkalosis, especially in the presence of hypocalcemia.

## **OVERDOSAGE**

Overdosage with sodium salts may cause diarrhea, nausea and vomiting, hypernoia, and convulsions.

## **DOSAGE AND ADMINISTRATION**

Sodium Citrate and Citric Acid Oral Solution USP should be taken diluted in water, followed by additional water, if desired. SHAKE WELL BEFORE USING.

### **For Systemic Alkalization**

#### **Usual Adult Dose**

2 to 6 teaspoonfuls (10 to 30 mL), diluted in 1 to 3 ounces of water, after meals and at bedtime, or as directed by a physician.

#### **Usual Pediatric Dose**

1 to 3 teaspoonfuls (5 to 15 mL), diluted in 1 to 3 ounces of water, after meals and at bedtime, or as directed by a physician. For children under two years of age, use is based on consultation with a physician.

**As a neutralizing buffer**

3 teaspoonfuls (15 mL), diluted with 15 mL water, taken as a single dose, or as directed by a physician.

**HOW SUPPLIED**

Sodium Citrate and Citric Acid Oral Solution USP (colorless, grape flavor) is supplied in the following oral dosage forms:

Overbagged with 5x 30 mL unit dose cups per bag, 55154-5777-5

**STORAGE:**

Keep tightly closed. Store at controlled room temperature, 20°-25°C (68°-77°F). Protect from freezing.

**Rx ONLY**

Manufactured By:  
Pharmaceutical Associates, Inc.  
Greenville, SC 29605  
[www.paipharma.com](http://www.paipharma.com)

**Distributed by:  
Cardinal Health**

Dublin, OH 43017

L53713070324

R06/16

**Package/Label Display Panel**

Sodium Citrate and Citric Acid Oral Solution USP

3 g/2 g per 30 mL

Sugar Free

5 Cups



F99

NDC 55154-5777-5

**SODIUM CITRATE AND CITRIC ACID**

**ORAL SOLUTION USP**

**3 g/2 g per 30 mL**

**Sugar Free**

**5 CUPS**

Delivers 30 mL

**SHAKE WELL-DILUTE AS DIRECTED**

See product insert for prescribing information, precautions and warnings.

**STORAGE:** Store at 20° to 25° C (68° to 77° F).

[See USP Controlled Room Temperature]

**RX ONLY**

**WARNING:** This Unit Dose package is not child resistant and is Intended for Institutional Use Only.

Keep this and all drugs out of the reach of children.

**PHARMACEUTICAL ASSOCIATES, INC.**

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GREENVILLE, SC 29605

(800) 845-8210

www.paipharma.com

DURA-DOSE®

Distributed by Cardinal Health

Dublin, OH 43017

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**SODIUM CITRATE AND CITRIC ACID**

sodium citrate and citric acid monohydrate solution

**Product Information**

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:55154-5777(NDC:0121-1190)
<b>Route of Administration</b>	ORAL		

**Active Ingredient/Active Moiety**

Ingredient Name	Basis of Strength	Strength
<b>SODIUM CITRATE, UNSPECIFIED FORM</b> (UNII: 1Q73Q2JULR) (ANHYDROUS CITRIC ACID - UNII:XF417D3PSL)	SODIUM CITRATE, UNSPECIFIED FORM	500 mg in 5 mL
<b>ANHYDROUS CITRIC ACID</b> (UNII: XF417D3PSL) (ANHYDROUS CITRIC ACID - UNII:XF417D3PSL)	ANHYDROUS CITRIC ACID	334 mg in 5 mL

**Inactive Ingredients**

Ingredient Name	Strength
<b>POLYETHYLENE GLYCOL, UNSPECIFIED</b> (UNII: 3WJQ0SDW1A)	
<b>PROPYLENE GLYCOL</b> (UNII: 6DC9Q167V3)	
<b>WATER</b> (UNII: 059QF0KO0R)	
<b>SODIUM BENZOATE</b> (UNII: OJ245FE5EU)	
<b>SORBITOL</b> (UNII: 506T60A25R)	

**Product Characteristics**

<b>Color</b>		<b>Score</b>	
<b>Shape</b>		<b>Size</b>	
<b>Flavor</b>	GRAPE	<b>Imprint Code</b>	
<b>Contains</b>			

**Packaging**

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:55154-5777-5	5 in 1 BAG	01/01/1969	
1		30 mL in 1 CUP, UNIT-DOSE; Type 0: Not a Combination Product		

**Marketing Information**

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
Unapproved drug other		01/01/1969	

**Labeler** - Cardinal Health 107, LLC (118546603)