

# **SODIUM CITRATE AND CITRIC ACID- sodium citrate and citric acid monohydrate solution**

**American Health Packaging**

*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 ( $\text{HCO}_3$ ).

Sodium citrate contains the following 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.

**To report SUSPECTED ADVERSE REACTIONS, contact Pharmaceutical Associates, Inc. at 1-800-845-8210 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).**

## **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 Alkalinization**

#### **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:

1.5 g/1 g in 15 mL cups packaged as 100 cups (10 x 10)

NDC 60687-832-16

3 g/2 g in 30 mL cups packaged as 100 cups (10 x 10)

NDC 60687-834-76

**STORAGE:**

Store at controlled room temperature, 20° to 25°C (68° to 77°F). Protect from freezing.

**Rx ONLY**

**DO NOT USE IF SEAL IS BROKEN.**

Distributed by:

**American Health Packaging**

Columbus, OH 43217

R02/24

**Package/Label Display Panel - Cup Lid - 1.5 g/1 g per 15 mL**



Rx Only

NDC 60687- **832**-44

**Sodium Citrate and  
Citric Acid**

ORAL SOLUTION, USP

**1.5 g/1 g per 15 mL**

Sugar Free

**Delivers 15 mL**

SHAKE WELL - DILUTE AS DIRECTED  
PROTECT FROM FREEZING.

See package insert for full  
prescribing information and storage.

For Institutional Use Only.

American Health Packaging  
Columbus, OH 43217

F0595C150224

**Package/Label Display Panel - Cup Lid - 3 g/2 g per 30 mL**



Rx Only

NDC 60687- **834**-45

**Sodium Citrate and Citric Acid**

ORAL SOLUTION, USP

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

Sugar Free

**Delivers 30 mL**

SHAKE WELL - DILUTE AS DIRECTED  
PROTECT FROM FREEZING.

See package insert for full  
prescribing information and storage.

For Institutional Use Only.

American Health Packaging  
Columbus, OH 43217

F0595C300224

## **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:60687-832
<b>Route of Administration</b>	ORAL		

Active Ingredient/Active Moiety				
Ingredient Name		Basis of Strength	Strength	
SODIUM CITRATE, UNSPECIFIED FORM (UNII: 1Q73Q2JULR) (ANHYDROUS CITRIC ACID - UNII:XF417D3PSL)		SODIUM CITRATE, UNSPECIFIED FORM	1500 mg in 15 mL	
ANHYDROUS CITRIC ACID (UNII: XF417D3PSL) (ANHYDROUS CITRIC ACID - UNII:XF417D3PSL)		ANHYDROUS CITRIC ACID	1002 mg in 15 mL	
Inactive Ingredients				
Ingredient Name			Strength	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WJQ0SDW1A)				
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)				
WATER (UNII: 059QF0KO0R)				
SODIUM BENZOATE (UNII: OJ245FE5EU)				
SORBITOL (UNII: 506T60A25R)				
Product Characteristics				
Color		Score		
Shape		Size		
Flavor	GRAPE	Imprint Code		
Contains				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:60687-832-16	10 in 1 CASE	07/21/2024	
1	NDC:60687-832-50	10 in 1 TRAY		
1	NDC:60687-832-44	15 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		07/21/2024		

SODIUM CITRATE AND CITRIC ACID			
sodium citrate and citric acid monohydrate solution			
Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:60687-834
Route of Administration	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	3000 mg in 30 mL
<b>ANHYDROUS CITRIC ACID</b> (UNII: XF417D3PSL) (ANHYDROUS CITRIC ACID - UNII:XF417D3PSL)	ANHYDROUS CITRIC ACID	2004 mg in 30 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:60687-834-76	10 in 1 CASE	07/21/2024	
1	NDC:60687-834-51	10 in 1 TRAY		
1	NDC:60687-834-45	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		07/21/2024	

**Labeler** - American Health Packaging (929561009)