#### EFFER-K 10 MEQ UNFLAVORED- potassium bicarbonate tablet, effervescent EFFER-K 10 MEQ CHERRY VANILLA- potassium bicarbonate tablet, effervescent EFFER-K 20 MEQ UNFLAVORED- potassium bicarbonate tablet, effervescent EFFER-K 20 MEQ ORANGE CREAM- potassium bicarbonate tablet, effervescent Nomax Inc.

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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#### Effer-K

# Description

*Effer-K*<sup>®</sup> 10mEq and 20 mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP) are intended for the preparation of an oral solution of potassium.

Each 10 mEq tablet contains 1.0g potassium bicarbonate and 0.84g citric acid which, after effervescing, provides a solution containing 10 mEq (391 mg) of elemental potassium as potassium citrate.

Each 20 mEq tablet contains 2.0g potassium bicarbonate and 1.68g citric acid which, after effervescing, provides a solution containing 20 mEq (782 mg) of elemental potassium as potassium citrate.

Tablets also contain maltodextrin, anhydrous dextrose and l-leucine. In addition, the flavored tablets contain SD flavors, and sucralose.

The 10 mEq Cherry Vanilla tablets contain FD&C Red #40 and the 20 mEq Orange Cream tablets contain FD&C Yellow #6 and FD&C Red #40. The Unflavored 10 and 20 mEq tablets do not contain any natural or synthetic dyes, flavors or sweeteners.

The 10 mEq tablets are 11/16 inch diameter round, flat face on both sides with large bevels. EK 10 is imprinted on one side. The 20 mEq tablets are 7/8 inch diameter round, flat face on both sides with large bevels. EK 20 is imprinted on one side. Each tablet is pouched with the product description on one side of the pouch and the lot number, expiration date and bar code on the other

## **Clinical Pharmacology**

Potassium ion is the principal intracellular cation of most body tissues, whereas sodium ion is relatively low in concentration. In extracellular fluid the opposite exists, sodium ion being principal and potassium ion being low. The situation is maintained by an active membrane-bound enzyme (Na<sup>+</sup>K<sup>+</sup>ATPase). This potassium ion concentration gradient is essential to conduct nerve impulses in such specialized tissues as the brain, heart, and skeletal muscle; and in addition, to maintain normal renal function, acid-base balance, and various cellular metabolic functions. Elimination values are 90% renal and 10% fecal.

Potassium depletion may occur if the rate of potassium ion loss by renal excretion and/or loss from the gastrointestinal tract exceeds the rate of potassium ion intake. Such depletion usually develops slowly as a consequence of prolonged therapy with oral diuretics, primary or secondary hyperaldosteronism, diabetic ketoacidosis, severe diarrhea, or inadequate replacement of potassium in patients on prolonged parenteral nutrition. Potassium depletion due to these causes is usually accompanied by a concomitant deficiency of chloride and is manifested by hypokalemia and metabolic alkalosis. Potassium depletion may produce weakness, fatigue, mood or mental changes, nausea, vomiting, disturbances of cardiac rhythm (primarily ectopic beats), prominent U-waves in the electrocardiogram, and in advanced cases flaccid paralysis and/or impaired ability to concentrate urine.

## Indications and Usage

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis; in chronic

digitalis intoxication; and in patients with hypokalemic familial periodic paralysis.

- 2. For prevention of potassium depletion when the dietary intake of potassium ion is inadequate in the following conditions; patients receiving digitalis and diuretics for congestive heart failure; hepatic cirrhosis with ascites; states of aldosterone excess with normal renal function; potassium-losing nephropathy, and certain diarrheal states; long-term corticosteroid therapy.
- 3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension or receiving certain antibiotics is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and, if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

#### Contraindications

Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Conditions predisposing to hyperkalemia include: chronic renal failure, acute metabolic acidosis, uncontrolled diabetes mellitus, esophageal compression or delayed gastric emptying or intestinal obstruction/stricture or peptic ulcer. Potassium supplements should be used with caution and only where medically indicated in patients with familial periodic paralysis, myotonia congenita or severe/complete heart block. IMPORTANT: Potassium supplements are contraindicated in patients receiving potassium-sparing diuretics (e.g. spironolactone, triamterene) since such use may produce severe hyperkalemia.

## Warnings

In patients with hyperkalemia and impaired mechanisms for excreting potassium the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic.

The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

**Note:** There is no conclusive evidence that potassium supplements lower blood pressure in hypertensive patients.

## Precautions

The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium, while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis, requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

## Information for patients

To minimize the possibility of gastrointestinal irritation associated with the oral ingestion of concentrated potassium salt preparations, patients should be directed to dissolve each dose completely in the stated amount of water.

Each dose should be taken immediately after a meal or with food. Patients should avoid low-salt foods and salt substitutes, unless approved by physician. The patient should be cautioned to comply strictly

with the regimen, particularly when taking diuretics or digitalis, to visit the physician regularly and to report at once any unusual symptoms (e.g. blackish stools, a sign of gastrointestinal bleeding). As with any other medicine, the patient should be counseled on this background information and advised to report to the physician any changes in routine (e.g. starting a fitness program). Proper storage and handling of the product is important. Tablets should not be removed from foil pouch until shortly before use.

#### Laboratory tests

Frequent clinical evaluation of the patient should include an ECG and a serum potassium level; also, as appropriate, renal function, serum magnesium and serum pH.

# **Drug Interactions**

The simultaneous administration of potassium supplements and a potassium-sparing diuretic can produce severe hyperkalemia (see Contraindications). Potassium supplements should be used cautiously in patients who are using salt substitutes, because most of the latter contain substantial amounts of potassium. Such concomitant use could result in hyperkalemia.

Moreover, the following drugs may produce unfavorable interactions when used concomitantly with potassium supplements: angiotension-converting enzyme (ACE) inhibitors, nonsteroid anti-inflammatory drugs (NSAIDs), beta-adrenergic blocking drugs, heparin, low-salt foods, other potassium containing medications, digitalis glycosides and others.

# Carcinogenesis, Mutagenesis, Impairment of Fertility

Potassium is an essential constituent of the human diet. There are no data available on long-term potential for carcinogenicity, mutagenicity, or impairment of fertility in animals or in human beings.

# Usage in Pregnancy

Pregnancy Category C

Animal reproduction studies have not been conducted with *Effer-K*<sup>®</sup> 10mEq or 20 mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP). It is also not known whether these products can cause fetal harm when administered to pregnant women or can affect reproduction capacity. *Effer-K*<sup>®</sup>10mEq or 20mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP) should be given to a pregnant woman only if clearly needed.

# Labor and Delivery

Information unknown.

# **Nursing Mothers**

Although no studies have been done, it is presumed that potassium is excreted in human milk. Caution should be exercised when *Effer-K*<sup>®</sup> 10mEq or 20mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP) are administered to a nursing woman.

# Usage in Children

Safety and effectiveness in children have not been established.

# Adverse Reactions

One of the most severe adverse effects is hyperkalemia (see Contraindications, Warnings and Overdosage). The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by diluting the preparation further, taking the dose with meals, or reducing the dose.

Skin rash has been reported rarely.

#### Overdosage

The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see Contraindications and Warnings). It is important to recognize that initially hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-wave, depression of S-T segment, and prolongation of the QT interval). Late manifestations include muscle paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the elimination of foods and medications containing potassium and potassium-sparing diuretics, as well as ACE inhibitors, beta blocking agents, NSAIDs, heparin, and cyclosporine. In cases of life-threatening hyperkalemia, treatment measures may include: (1) intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10-20 units of insulin per 1,000 ml; (2) correction of acidosis, if present, with intravenous sodium bicarbonate; (3) use of exchange resins, hemodialysis, or peritoneal dialysis; (4) administration of a calcium salt to antagonize the cardiotoxic effects in patients whose electrocardiograms show appropriate characteristics, and who are not receiving digitalis glycosides; and (5) maintenance of a high urine output in suitable patients.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, rapid lowering of serum potassium can produce digitalis toxicity.

#### Dosage and administration

*Effer-K*<sup>®</sup> 10 mEq. Adults - one tablet (Cherry Vanilla or Unflavored) each containing 10 mEq. (391 mg) of elemental potassium, 1 to 4 times daily, depending on the requirement of the patient. Completely dissolve the Cherry Vanilla flavored tablet in 2 to 3 ounces (58 to 85 mL) of cold or ice water before drinking. Completely dissolve the Unflavored tablet in 2 to 3 ounces (58 to 85 mL) of cold juice of choice before drinking.

*Effer-K*<sup>®</sup> 20 mEq. Adults - one tablet (Orange Cream or Unflavored) each containing 20 mEq. (782 mg) of elemental potassium, 1 to 4 times daily, depending on the requirement of the patient. Completely dissolve the Orange Cream flavored tablet in 3 to 4 ounces (85 to 115 mL) of cold or ice water before drinking. Completely dissolved the Unflavored tablet in 3 to 4 ounces (85 to 115 mL) of cold juice of choice before drinking.

**NOTE:** It is suggested that any effervescent potassium tablet be taken with meals and sipped slowly over a 5 to 10 minute period.

#### **How Supplied**

Each tablet of *Effer-K*<sup>®</sup> 10 mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP) in solution provides 10 mEq (391 mg) of elemental potassium as potassium citrate.

Each tablet of *Effer-K*<sup>®</sup> 20 mEq Tablets (Effervescent Potassium Bicarbonate/ Citric Acid Tablets for Oral Solution, USP) in solution provides 20 mEq (782 mg) of elemental potassium as potassium citrate. Store below 40°C (104°F), preferably between 15° and 30°C (59° and 86°F), in original hermetic package.

The 10 mEq tablets are 11/16 inch diameter round, flat face on both sides with large bevels. EK 10 is imprinted on one side of the tablet. Each tablet is pouched with the product description on one side of the pouch and the lot number, expiration date and barcode on the other.

The 20 mEq tablets are 7/8 inch diameter round, flat face on both sides with large bevels. EK 20 is

imprinted on one side of the tablet. Each tablet is pouched with the product description on one side of the pouch and the lot number, expiration date and barcode on the other.

NDC 51801-01330 Unflavored, 10 mEq, package of 30 tablets NDC 51801-01430 Cherry Vanilla, 10 mEq, package of 30 tablets NDC 51801-01130 Unflavored, 20 mEq, package of 30 tablets NDC 51801-01230 Orange Cream, 20 mEq, package of 30 tablets

Nomax, Inc. St. Louis, MO 63123 - Made in USA MSN 015-183

Rev. 05/12

#### PRINCIPAL DISPLAY PANEL - 10mEq Tablet Pouch Carton - Unflavored

NDC 51801-013-30 30 Tablets

*Effer-K*<sup>®</sup> 10mEq Tablets

#### **POTASSIUM BICARBONATE / CITRIC ACID EFFERVESCENT TABLETS FOR ORAL SOLUTION, USP**

Upon effervescing, each tablet provides 10mEq (391mg) of potassium in solution as potassium citrate.

Unflavored Rx Only

nomax inc

# NDC 51801-013-30 30 Tablets

Unflavored **J**mEq Tablets Potassium Bicarbonate / Citric Acid Effervescent Tablets for Oral Solution, USP Rx Only

# nomax inc

#### PRINCIPAL DISPLAY PANEL - 10 mEq Tablet Pouch Carton - Cherry Vanilla

NDC 51801-014-30 30 Tablets

*Effer-K*<sup>®</sup> 10 mEq Tablets

#### **POTASSIUM BICARBONATE / CITRIC ACID EFFERVESCENT TABLETS FOR ORAL SOLUTION, USP**

Upon effervescing, each tablet provides 10mEq (391mg) of potassium in solution as potassium citrate.

Cherry Vanilla Rx Only

# NDC 51801-014-30 30 Tablets



# nomax inc

#### PRINCIPAL DISPLAY PANEL - 20 mEq Tablet Pouch Carton - Unflavored

NDC 51801-011-30 30 Tablets

*Effer-K*<sup>®</sup> 20 mEq Tablets

#### **POTASSIUM BICARBONATE / CITRIC ACID EFFERVESCENT TABLETS FOR ORAL SOLUTION, USP**

Upon effervescing, each tablet provides 20mEq (782mg) of potassium in solution as potassium citrate.

Unflavored



# PRINCIPAL DISPLAY PANEL - 20mEq Tablet Pouch Carton - Orange Cream

NDC 51801-012-30 30 Tablets

*Effer-K*<sup>®</sup> 20mEq Tablets

POTASSIUM BICARBONATE / CITRIC ACID EFFERVESCENT TABLETS FOR ORAL SOLUTION, USP

Upon effervescing, each tablet provides 20mEq (782mg) of potassium in solution as potassium citrate.

Orange Cream Rx Only

nomax inc

# NDC 51801-012-30 30 Tablets



**Rx Only** 

# nomax inc

EFFER-K 10 MEQ UNFLAVORED					
potassium bicarbonate tablet, effervescent					
Product Information					
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:51801-013		
Route of Administration	ORAL				

Active Ingredient/Active Moiety				
Ingredient Name	Basis o	of Strength	Strength	
POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K	152) POTASS	SIUM CATION	391 mg	
Inactive Ingredients			-	
Ingredient Name		Stre	ngth	
CITRIC ACID MONOHYDRATE (UNII: 2968PHW8QP)		840 mg		
MALTO DEXTRIN (UNII: 7CVR7L4A2D)		64.5 mg		
DEXTROSE (UNII: IY9XDZ35W2)		17.5 mg		
LEUCINE (UNII: GMW67QNF9C)		45 mg		
Product Characteristics				
Color WHITE Score		2 pieces		
Shape ROUND Size		17mm		
Flavor Imprint Code		EK;10		
Contains				
Packaging				
# Item Code Package Description Marketing	Start Date	Marketing	End Date	
1     NDC:51801-013-30     30 in 1 CARTON     01/30/2013				
1 1 in 1 POUCH; Type 0: Not a Combination Product				
Marketing Information				
Malating Catagorian Anglianting Nambang Managoria Citating Mada		Manlardar		
Marketing Category Application Number or Monograph Citation Market	ing Start Date	e Marketing	g End Date	
UNAPPRO VED DRUG OTHER 01/30/20	013			
EFFER-K 10 MEQ CHERRY VANILLA				
potassium bicarbonate tablet, effervescent				
Product Information				
Product Type HUMAN PRESCRIPTION DRUG Item Cod	e (Source)	NDC:518	0 1-0 14	
i i ou u c i i p c i i c i	· · ·			
Poute of Administration OPAL				
Route of Administration ORAL				
Route of Administration ORAL				
Route of Administration ORAL				
Route of Administration   ORAL     Active Ingredient/Active Moiety				
Route of Administration   ORAL     Active Ingredient/Active Moiety     Ingredient Name	Basis o	of Strength	Strength	
Route of Administration   ORAL     Active Ingredient/Active Molety     Ingredient Name     POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K	Basis o 152) POTASS	of Strength SIUM CATION	Strength 391 mg	
Route of Administration   ORAL     Active Ingredient/Active Moiety     Ingredient Name     POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K	Basis o 152) POTASS	of Strength SIUM CATION	<b>Strength</b> 391 mg	
Route of Administration   ORAL     Active Ingredient/Active Molety     Ingredient Name     POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K	<b>Basis o</b> 152) POTASS	of Strength SIUM CATION	<b>Strength</b> 391 mg	
Route of Administration   ORAL     Active Ingredient/Active Molety     Ingredient Name     POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K     Inactive Ingredients	Basis o 152) POTASS	of Strength SIUM CATION	Strength 391 mg	

CIT	CITRIC ACID MONOHYDRATE (UNII: 2968PHW8QP) 840 mg					0 mg	
MALTO DEXTRIN (UNII: 7CVR7L4A2D)					17.	17.5 mg	
DEX	<b>KTROSE</b> (UNII: IY92	XDZ35W	V2)			17.	5 mg
LEU	J <b>CINE</b> (UNII: GMW6	7QNF9	C)			45	mg
Pre	oduct Characte	ristics	5				
Col	or	PINK		Sc	ore		2 pieces
Sha	ıpe	ROUNI	D	Siz	ze		17mm
Fla	vor	CHERR	RY (Cherry Vanilla)	Im	print Code		EK;10
Cor	ntains						
Pa	ckaging						
#	Item Code		Package Description	Ma	rketing Start Date	Marl	keting End Date
1 N	IDC:51801-014-30	30 in 1	CARTON	0 1/3	0/2013		
1		1 in 1 P	OUCH; Type 0: Not a Combination Product				
ъл			<b>4:</b>				
IVL	arketing Info	orma	tion				
J	Marketing Catego	ory	Application Number or Monograph Cita	tion	Marketing Start Date	Ma	rketing End Date
UNA	APPROVED DRUG C	OTHER			0 1/30 /20 13		

EFFER-K 20 MEQ UNF	LAVORED				
potassium bicarbonate tablet, effer	vescent				
Product Information					
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (So	urce)	NDC:51801-011	
Route of Administration	ORAL				
Active Ingredient/Active Moi	ety				
1	ngredient Name		Basis of S	trength	Strength
POTASSIUM BICARBONATE (UNII: HM5Z15LEBN) (POTASSIUM CATION - UNII:295053K152) POTASSIUM CATION 782 mg					782 mg
Inactive Ingredients					
	Ingredient Name			Stre	ngth
CITRIC ACID MONOHYDRATE (UNII: 2968PHW8QP)				1680 mg	
MALTO DEXTRIN (UNII: 7CVR7L4A2D)			129 mg		
DEXTROSE (UNII: IY9XDZ35W2)			35 mg		
<b>LEUCINE</b> (UNII: GMW67QNF9C)				90 mg	
Product Characteristics					

Co	lor	WHIT	E	Score			2	pieces	
Sh	ape	ROUN	ND	Size			2	2mm	
Fla	avor			Imprint Code			E	K:20	
Co	ntains							, -	
	inturns								
Pa	ackaging								
#	Item Code	I	Package Descript	tion	Mark	eting Start	Date	Marketing	End Date
1	NDC:51801-011-30	30 in 1 CARTO	N		0 1/30 /2	0 13			
1		1 in 1 POUCH; 7	Гуре 0: Not a Combi	ination Product					
M	larketing Info	rmation							
141	Marketing Catego	orv Annli	cation Number or	Monograph Citat	ion M	larketing S	tart Date	Marketing	End Date
LIN				Monograph Chat		1/30/2013		Markeung	, Liid Date
01	ATTROVED DRUG C	TIEK			01	1/30/2013			
			NCE CDEA	М					
	FER-K 201		INGE CREA	<b>IVI</b>					
pot	tassium bicarbona	te tablet, effe	rvescent						
P	roduct Informat	ion							
Pı	roduct Type		HUMAN PRESCRIPTION DRUGItem Code (Source)			urce)	NDC:51801-012		
Ro	Route of Administration ORAL								
A	ctive Ingredient	Active Moi	ety						
		]	Ingredient Name	redient Name Basis			Basis of	Strength	Strength
PC	TASSIUM BICARB	<b>ONATE</b> (UNII: H	M5Z15LEBN) (POT.	ASSIUM CATION - U	JNII:295	5053K152)	POTASSI	UM CATION	782 mg
_									
In	active Ingredie	nts							
			Ingredient 1	Name				Stre	ngth
СГ	TRIC ACID MONOH	IYDRATE (UNII	: 2968PHW8QP)					1680 mg	
M	ALTODEXTRIN (UN	II: 7CVR7L4A2I	))					35 mg	
DE	EXTROSE (UNII: IY92	XDZ35W2)						35 mg	
LE	E <b>UCINE</b> (UNII: GMW6	7QNF9C)						90 mg	
p-	aduat Characte	rictics							
r I		ODANCE			C			D	
Co	lor	DOLINID			Scor	e		2 piece	25
Sh	ape	KUUND			Size			22mm	
Fla	avor	ORANGE (Oran	ige Cream)		Impr	int Code		EK;20	
Co	ontains								

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51801-012-30	30 in 1 CARTON	0 1/30 /20 13	
1		1 in 1 POUCH; Type 0: Not a Combination Product		
N	Aarketing Info	ormation		
	Marketing Catego	ry Application Number or Monograph Citat	tion Marketing Start Date	Marketing End Date
U	NAPPRO VED DRUG O	THER	0 1/30/20 13	

Labeler - Nomax Inc. (103220273)

Establishn	nent		
Name	Address	ID/FEI	Business Operations
Nomax Inc.		103220273	MANUFACTURE(51801-013, 51801-014, 51801-011, 51801-012)

Revised: 12/2019

Nomax Inc.