# POTASSIUM CHLORIDE- potassium chloride capsule, coated, extended release

RedPharm Drug, Inc.

-----

# Potassium Chloride ER 10meq

#### 1 INDICATIONS AND USAGE

Potassium chloride extended-release capsules are indicated for the treatment and prophylaxis of hypokalemia in adults and children with or without metabolic alkalosis, in patients for whom dietary management with potassium-rich foods or diuretic dose reduction is insufficient.

#### 2 DOSAGE AND ADMINISTRATION

# 2.1 Administration and Monitoring

If serum potassium concentration is <2.5 mEq/L, use intravenous potassium instead of oral supplementation.

# Monitoring

Monitor serum potassium and adjust dosages accordingly. Monitor serum potassium periodically during maintenance therapy to ensure potassium remains in desired range.

The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance, volume status, electrolytes, including magnesium, sodium, chloride, phosphate, and calcium, electrocardiograms and the clinical status of the patient. Correct volume status, acid-base balance and electrolyte deficits as appropriate.

#### Administration

Take with meals and with a full glass of water or other liquid. Do not take on an empty stomach because of the potential for gastric irritation [see Warnings and Precautions (5.1)].

Patients who have difficulty swallowing capsules may sprinkle the contents of the capsule onto a spoonful of soft food. The soft food, such as applesauce or pudding, should be swallowed immediately without chewing and followed with a glass of water or juice to ensure complete swallowing of the microcapsules. Do not added to hot foods. Any microcapsule/food mixture should be used immediately and not stored for future use.

### 2.2 Adult Dosing

Dosage must be adjusted to the individual needs of each patient. Dosages greater than 40 mEq per day should be divided such that no more than 40 mEq is given in a single dose.

Treatment of hypokalemia: Typical dose range is 40 to 100 mEq per day.

*Maintenance or Prophylaxis:* Typical dose is 20 mEq per day.

# 2.3 Pediatric Dosing

Pediatric patients aged birth to 16 years old: Dosage must be adjusted to the individual needs of each patient. Do not exceed as a single dose 1 mEq/kg or 20 mEq, whichever is lower.

Treatment of hypokalemia: The recommended initial dose is 2 to 4 mEq/kg/day in divided doses. If deficits are severe or ongoing losses are great, consider intravenous therapy.

Maintenance or Prophylaxis: Typical dose is 1 mEq/kg/day.

#### **3 DOSAGE FORMS AND STRENGTHS**

Potassium chloride extended-release capsules USP, 600 mg (equivalent to 8 mEq of potassium) are size '00' opaque white color hard gelatin capsules imprinted with 'LU' on cap and 'R51' on body in black ink containing white to off white coated pellets.

Potassium chloride extended-release capsules USP, 750 mg (equivalent to 10 mEq of potassium) are size '00 EL' opaque blue color hard gelatin capsules imprinted with 'LU' on cap and 'R52' on body in white ink containing white to off white coated pellets.

#### **4 CONTRAINDICATIONS**

Potassium chloride extended-release capsules are contraindicated in patients on amiloride or triamterene.

#### **5 WARNINGS AND PRECAUTIONS**

#### 5.1 Gastrointestinal Adverse Reactions

Solid oral dosage forms of potassium chloride can produce ulcerative and/or stenotic lesions of the gastrointestinal tract, particularly if the drug is in contact with the

gastrointestinal mucosa for a prolonged period of time. Consider the use of liquid potassium in patients with dysphagia, swallowing disorders, or severe gastrointestinal motility disorders.

If severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs, discontinue potassium chloride extended-release capsules and consider possibility of ulceration, obstruction or perforation.

Potassium chloride extended-release capsules should not be taken on an empty stomach because of its potential for gastric irritation [see Dosage and Administration (2.1)].

#### **6 ADVERSE REACTIONS**

The following adverse reactions have been identified with use of oral potassium salts. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

The most common adverse reactions to oral potassium salts are nausea, vomiting, flatulence, abdominal pain/discomfort, and diarrhea.

There have been reports of hyperkalemia and of upper and lower gastrointestinal conditions including, obstruction, bleeding, ulceration, and perforation.

Skin rash has been reported rarely.

To report SUSPECTED ADVERSE REACTIONS, contact Lupin Pharmaceuticals, Inc. at 1-800-399-2561 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

#### 7 DRUG INTERACTIONS

#### 7.1 Amiloride and Triamterene

Use with triamterene or amiloride can produce severe hyperkalemia. Concomitant use is contraindicated [see Contraindications (4)].

# 7.2 Renin-Angiotensin-Aldosterone Inhibitors

Drugs that inhibit the renin-angiotensin-aldosternone system (RAAS) including angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), spironolactone, eplerenone, or aliskiren produces potassium retention by inhibiting aldosterone production. Closely monitor potassium in patients taking drugs that inhibit RAAS.

# 7.3 Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)

NSAIDs may produce potassium retention by reducing renal synthesis of prostaglandin E and impairing the renin-angiotensin system. Closely monitor potassium in patients taking NSAIDS.

#### **8 USE IN SPECIFIC POPULATIONS**

# 8.1 Pregnancy

# Risk Summary

There are no human data related to use of potassium chloride extended-release capsules during pregnancy and animal reproductive studies have not been conducted. Potassium supplementation that does not lead to hyperkalemia is not expected to cause fetal harm.

The background risk for major birth defects and miscarriage in the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and 15 to 20%, respectively.

#### 8.2 Lactation

# Risk Summary

The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, as long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

#### 8.4 Pediatric Use

Clinical trial data from published literature have demonstrated the safety and effectiveness of potassium chloride in children with diarrhea and malnutrition from birth to 18 years.

#### 8.5 Geriatric Use

Clinical studies of potassium chloride did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater

frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

#### 8.6 Cirrhotics

Based on publish literature, the baseline corrected serum concentrations of potassium measured over 3 hours after administration in cirrhotic subjects who received an oral potassium load rose to approximately twice that of normal subjects who received the same load. Patients with cirrhosis should usually be started at the low end of the dosing range, and the serum potassium level should be monitored frequently [see Clinical Pharmacology (12.3)].

# 8.7 Renal Impairment

Patients with renal impairment have reduced urinary excretion of potassium and are at substantially increased risk of hyperkalemia. Patients with impaired renal function, particularly if the patient is on RAAS inhibitors or nonsteroidal anti-inflammatory drugs, should usually be started at the low end of the dosing range because of the potential for development of hyperkalemia [see Drug Interactions (7.2, 7.3]. The serum potassium level should be monitored frequently. Renal function should be assessed periodically.

#### **10 OVERDOSAGE**

# 10.1 Symptoms

The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired, potentially fatal hyperkalemia can result.

Hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration (6.5 to 8.0 mEq/L) and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT- interval). Late manifestations include muscle paralysis and cardiovascular collapse from cardiac arrest (9 to 12 mEq/L).

#### **10.2 Treatment**

Treatment measures for hyperkalemia include the following:

- 1. Monitor closely for arrhythmias and electrolyte changes.
- 2. Eliminate foods and medications containing potassium and any agents with potassium- sparing properties such as potassium-sparing diuretics, ARBs, ACE inhibitors, NSAIDs, certain nutritional supplements, and many others.
- 3. Administer intravenous calcium gluconate if the patient is at no risk or low risk of developing digitalis toxicity.
- 4. Administer 300 to 500 mL/hr of 10% dextrose solution containing 10 to 20 units of crystalline insulin per 1,000 mL.
- 5. Correct acidosis, if present, with intravenous sodium bicarbonate.
- 6. Use exchange resins, hemodialysis, or peritoneal dialysis.

In patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

The extended-release feature means that absorption and toxic effects may be delayed for hours. Consider standard measures to remove any unabsorbed drug.

#### 11 DESCRIPTION

Potassium chloride extended-release capsules USP, 8 mEq and 10 mEq are oral dosage forms of microencapsulated potassium chloride containing 600 and 750 mg, respectively, of potassium chloride USP equivalent to 8 and 10 mEq of potassium.

The chemical name of the active ingredient is potassium chloride and the structural formula is KCl. It has a molecular mass of 74.55. Potassium chloride, USP, occurs as a white, granular powder or as colorless crystals. It is odorless and has a saline taste. Its solutions are neutral to litmus. It is freely soluble in water and insoluble in alcohol.

The inactive ingredients are ethyl cellulose, triethyl citrate, talc, sodium lauryl sulfate, gelatin, titanium dioxide, shellac, propylene glycol, potassium hydroxide. In addition 600 mg [equivalent to 8 mEq of potassium] capsule also contain black iron oxide and 750 mg [equivalent to 10 mEq of potassium] capsule also contain FD&C blue #1 and FD&C red #40.

#### 12 CLINICAL PHARMACOLOGY

#### 12.1 Mechanism of Action

The potassium ion (K+) is the principal intracellular cation of most body tissues. Potassium ions participate in a number of essential physiological processes, including

the maintenance of intracellular tonicity; the transmission of nerve impulses; the contraction of cardiac, skeletal, and smooth muscle; and the maintenance of normal renal function.

The intracellular concentration of potassium is approximately 150 to 160 mEq per liter. The normal adult plasma concentration is 3.5 to 5 mEq per liter. An active ion transport system maintains this gradient across the plasma membrane.

Potassium is a normal dietary constituent and under steady-state conditions the amount of potassium absorbed from the gastrointestinal tract is equal to the amount excreted in the urine. The usual dietary intake of potassium is 50 to 100 mEq per day.

#### 12.3 Pharmacokinetics

Each crystal of KCl is microencapsulated and allows for the controlled release of potassium and chloride ions over an eight- to ten-hour period.

**Specific Populations** 

#### **Cirrhotics**

Based on publish literature, the baseline corrected serum concentrations of potassium measured over 3 hours after administration in cirrhotic subjects who received an oral potassium load rose to approximately twice that of normal subjects who received the same load.

# 16 HOW SUPPLIED/STORAGE AND HANDLING

Potassium chloride Extended-Release Capsules USP contain 600 mg and 750 mg of potassium chloride (equivalent to 8 mEq and 10 mEq of potassium, respectively).

**Table 1: How Supplied** 

				NDC		
Dose	Color	Printing	ing Bottle		Count	
			100	500		
600 mg (equivalent to 8 mEq of	opaque white	"R51" - body	68180-798- 01	68180-798- 02	-	
potassium)		"LU" - cap				
			100	500	1000	

750 mg (equivalent	opaque	"R52" -	68180-799-	68180-799-	68180-799-
to 10	blue	body	01	02	03
mEq of potassium)		"LU" - cap			

Store at 25°C (77°F); excursions permitted to 15°C to 30°C (59° to 86°F) [See USP Controlled Room Temperature].

Dispense in tight, light-resistant container as defined in the USP, with a child-resistant closure.

Rx only

#### 17 PATIENT COUNSELING INFORMATION

- Inform patients to take each dose with meals and with a full glass of water or other liquid.
- Advise patients seek medical attention if tarry stools or other evidence of gastrointestinal toxicity is noticed.

Manufactured for:

# Lupin Pharmaceuticals, Inc.

Baltimore, Maryland 21202

**United States** 

Manufactured by:

# **Lupin Limited**

Pithampur (M.P.) - 454 775

INDIA

Revised: August 2018 ID: 255866

#### PACKAGE LABEL.PRINCIPAL DISPLAY PANEL

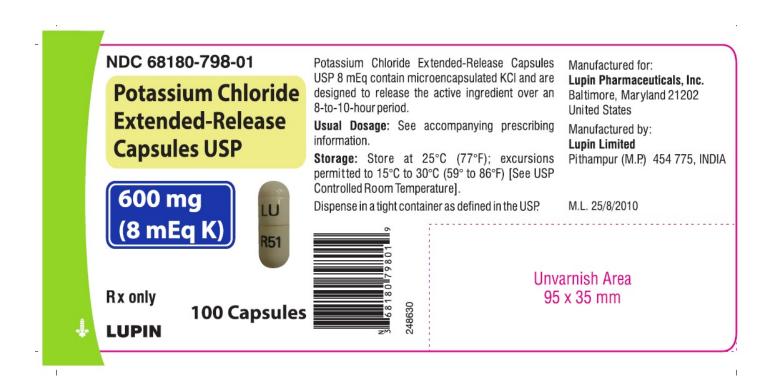
Potassium Chloride Extended-Release Capsules USP

Rx only

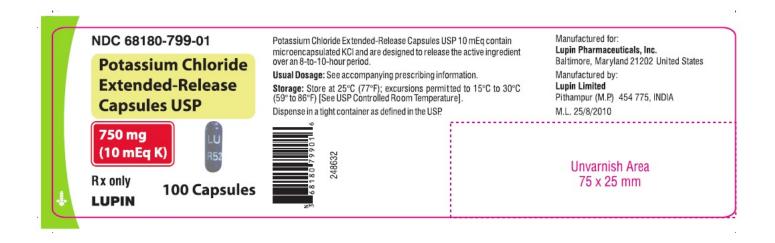
600mg (8 mEg K)

NDC 68180-798-01

100 capsules



Potassium Chloride Extended-Release Capsules USP Rx only 750mg (10 mEq K) NDC 68180-799-01 100 capsules





(01)00367296181463 (21)1000000000000002 (17)230228 (10)000934X1

# NDC: 67296-1814-6 POTASSIUM CHLORIDE ER

10mEq (750MG) 6 Capsules

Lot: 000934X1

Exp: 02/23

Usual adult dosage: See package insert

Store at controlled room temperature: 20-25 C (68-77 F)

Mfg: Lupin Limited

Rx Only

Pithampur (M.P.) 454 775 India

68180-799-01

Dist. by: Redpharm Drug Eden Prairie, MN 55344

SIN 198790



# **POTASSIUM CHLORIDE**

potassium chloride capsule, coated, extended release

<b>Product Informat</b>	ion
-------------------------	-----

Product Type

HUMAN PRESCRIPTION DRUG

HUMAN PRESCRIPTION (Source)

NDC:67296-1814(NDC:68180-799)

Route of Administration ORAL

Active Ingredient/Active Moiety					
	Ingredient Name	Basis of Strength	Strength		
	POTASSIUM CHLORIDE (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295053K152)	POTASSIUM CHLORIDE	10 meq		

Inactive Ingredients				
Ingredient Name	Strength			
ETHYLCELLULOSE (10 MPA.S) (UNII: 3DYK7UYZ62)				
ETHYLCELLULOSE (45 MPA.S) (UNII: V7AD894FAZ)				
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)				
FD&C RED NO. 40 (UNII: WZB9127XOA)				
GELATIN (UNII: 2G86QN327L)				
POTASSIUM HYDROXIDE (UNII: WZH3C48M4T)				
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)				
SHELLAC (UNII: 46N107B710)				
SODIUM LAURYL SULFATE (UNII: 368GB5141J)				
TALC (UNII: 7SEV7J4R1U)				
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)				
TRIETHYL CITRATE (UNII: 8Z96QXD6UM)				

Product Characteristic
------------------------

Color blue (Opaque Blue) Score no score

Shape	CAPSULE	Size	26mm
Flavor		Imprint Code	LU;R52
Contains			

l	Packaging					
	# Item Code	Package Description	Marketing Start Date	Marketing End Date		
	<b>1</b> NDC:67296- 1814-6	6 in 1 BOTTLE; Type 0: Not a Combination Product	01/18/2016			

Marketing Information					
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date		
ANDA	ANDA203002	01/18/2016			

# Labeler - RedPharm Drug, Inc. (828374897)

Establishment					
Name	Address	ID/FEI	Business Operations		
RedPharm Drug		828374897	repack(67296-1814)		

Revised: 7/2024 RedPharm Drug, Inc.