POTASSIUM CHLORIDE - potassium chloride capsule, extended release
Zydus Pharmaceuticals (USA) Inc.

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use POTASSIUM CHLORIDE EXTENDED-RELEASE CAPSULES safely and effectively. See full prescribing information for POTASSIUM CHLORIDE EXTENDED-RELEASE CAPSULES

POTASSIUM CHLORIDE extended-release capsules, for oral administration
Initial U.S. Approval: 1948

INDICATIONS AND USAGE

Potassium chloride extended-release capsules contain potassium chloride, a potassium salt indicated for the treatment and prophylaxis of hypokalemia with or without metabolic alkalosis, in patients for whom dietary management with potassium-rich foods or diuretic dose reduction is insufficient. (1) (1)

DOSAGE AND ADMINISTRATION

Monitor serum potassium and adjust dosage accordingly (2.1) (2)
If serum potassium concentration is <2.5 mEq/L, use intravenous potassium instead of oral supplementation. (2.1) (2)
Treatment of hypokalemia: (2)

- Adults: Typical doses range from 40 mEq/day to 100 mEq/day in 2 to 5 divided doses; limit doses to 40 mEq per dose. (2.2)
- Pediatric patients: 2 mEq/kg/day to 4 mEq/kg/day in divided doses not to exceed 1 mEq/kg as a single dose or 20 mEq, whichever is lower; if deficits are severe or ongoing losses are great, consider intravenous therapy. (2.3)

Maintenance or Prophylaxis of hypokalemia: (2)

- Adults: Typical dose is 20 mEq per day (2.2)
- Pediatric patients: Typical dose is 1 mEq/kg/day. (2.3)

DOSAGE FORMS AND STRENGTHS

- Extended-release capsules: 600 mg (8mEq) and 750 mg (10 mEq)

CONTRAINDICATIONS

- Concomitant use with triamterene and amiloride. (4)

WARNINGS AND PRECAUTIONS

- Gastrointestinal Irritation: Take with meals (5.1)

ADVERSE REACTIONS

Most common adverse reactions are nausea, vomiting, flatulence, abdominal pain/discomfort, and diarrhea. (6) (6)
To report SUSPECTED ADVERSE REACTIONS, contact Zydus Pharmaceuticals (USA) Inc. at 1-877-993-8779 or FDA at 1-800-FDA-1088 or *www.fda.gov/medwatch.* (6)

DRUG INTERACTIONS

- Triamterene and amiloride: Concomitant use is contraindicated (7.1)
- Renin-angiotensin-aldosterone inhibitors: Monitor for hyperkalemia (7.2)
- Nonsteroidal Anti-inflammatory drugs (NSAIDS): Monitor for hyperkalemia (7.3)

USE IN SPECIFIC POPULATIONS

- Cirrhosis: Initiate therapy at the low end of the dosing range (8.6)
- Renal Impairment: Initiate therapy at the low end of the dosing range (8.7)

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 2/2021

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FULL PRESCRIBING INFORMATION

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 mEq per day 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 mEq/kg/day 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

600 mg (8 mEq): White to off-white pellets, filled into size "0" empty hard gelatin capsule with opaque pale orange body imprinted with "002" in black ink and opaque pale orange cap imprinted with "002" in black ink.

750 mg (10 mEq): White to off-white pellets, filled into size "00s1" empty hard gelatin capsule with opaque white body imprinted with "001" in black ink and opaque pale orange cap imprinted with "001" in black ink.

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.

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 mEq/L to 8 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 mEq/L 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 are an oral dosage form of microencapsulated potassium chloride containing 600 mg and 750 mg of potassium chloride, USP, equivalent to 8 mEq and 10 mEq of potassium, respectively.

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 crystalline powder or as colorless crystals. It is odorless and has a salty taste. Its solutions are neutral to litmus. It is freely soluble in water and insoluble in alcohol.

Inactive ingredients: colloidal silicon dioxide, ethyl cellulose, D&C yellow 10, FD&C red 40, gelatin, hypromellose, polyethylene glycol, sodium lauryl sulfate, talc and titanium dioxide. Each capsule is printed with opacode black ink which contains propylene glycol, D&C yellow #10 aluminum lake, FD&C blue #1 aluminum lake, FD&C blue #2 aluminum lake, FD&C red #40 aluminum lake, ferrosoferric oxide and shellac.

Meets USP Dissolution Test 4.

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 mEq per liter to 160 mEq per liter. The normal adult plasma concentration is 3.5 mEq per liter 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 mEq per day 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, 8 mEq K (600 mg) are white to off-white pellets, filled into size "0" empty hard gelatin capsule with opaque pale orange body imprinted with "002" in black ink and opaque pale orange cap imprinted with "002" in black ink and are supplied as follows:

NDC 68382-853-01 in bottles of 100 capsules

NDC 68382-853-05 in bottles of 500 capsules

NDC 68382-853-10 in bottles of 1000 capsules

NDC 68382-853-77 in unit-dose blister cartons of 100 (10 x 10) Unit-dose capsules

Potassium chloride extended-release capsules USP, 10 mEq K (750 mg) are white to off-white pellets, filled into size "00sl" empty hard gelatin capsule with opaque white body imprinted with "001" in black ink and opaque pale orange cap imprinted with "001" in black ink and are supplied as follows:

NDC 68382-854-01 in bottles of 100 capsules

NDC 68382-854-05 in bottles of 500 capsules

NDC 68382-854-10 in bottles of 1000 capsules

NDC 68382-854-77 in unit-dose blister cartons of 100 (10 x 10) Unit-dose capsules

Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature]. Dispense in a tight container as defined in the USP.

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 by:

Cadila Healthcare Ltd.

Matoda, Ahmedabad, India

Distributed by:

Zydus Pharmaceuticals (USA) Inc.

Pennington, NJ 08534

Rev.: 01/21

PACKAGE LABEL.PRINCIPAL DISPLAY PANEL

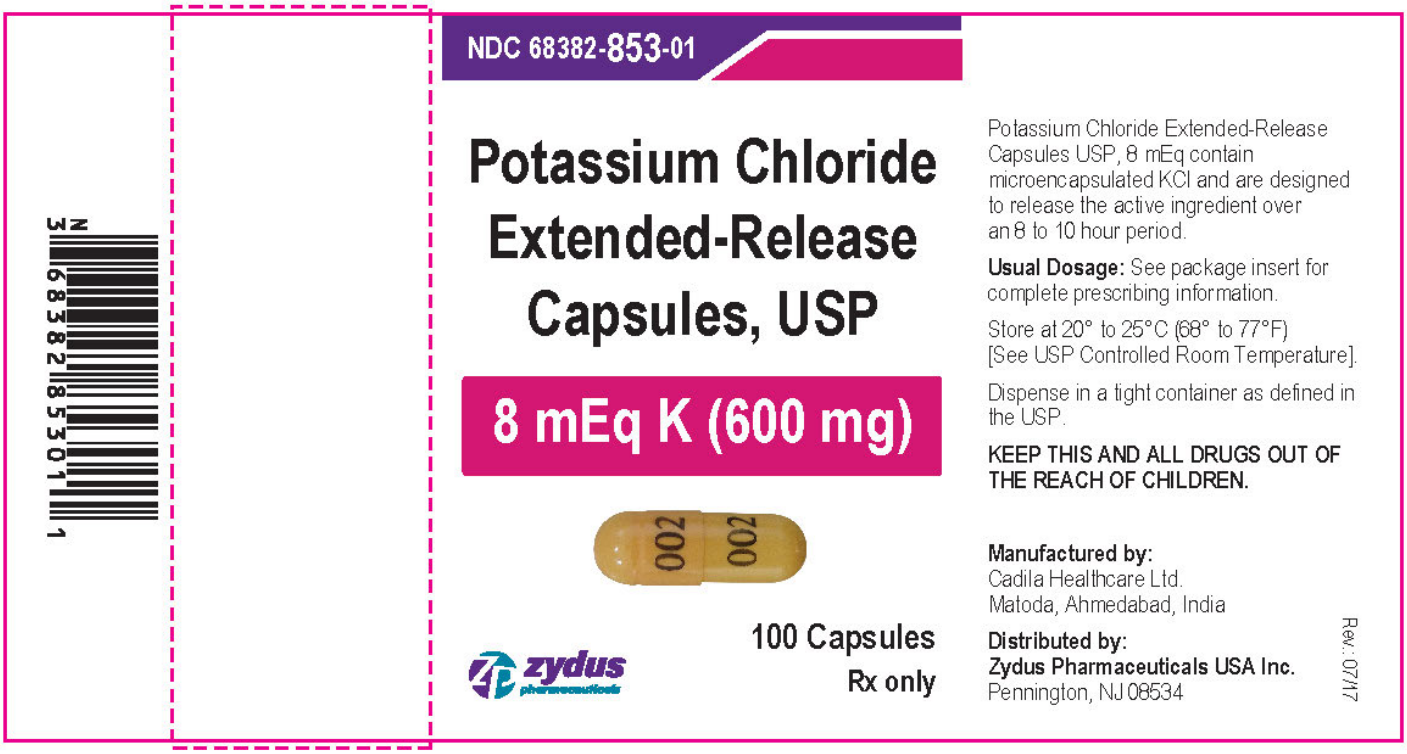
NDC 68382-853-01 in bottles of 100 capsules

Potassium Chloride Extened-release Capsules, USP

8 mEq K (600 mg)

Rx only

ZYDUS



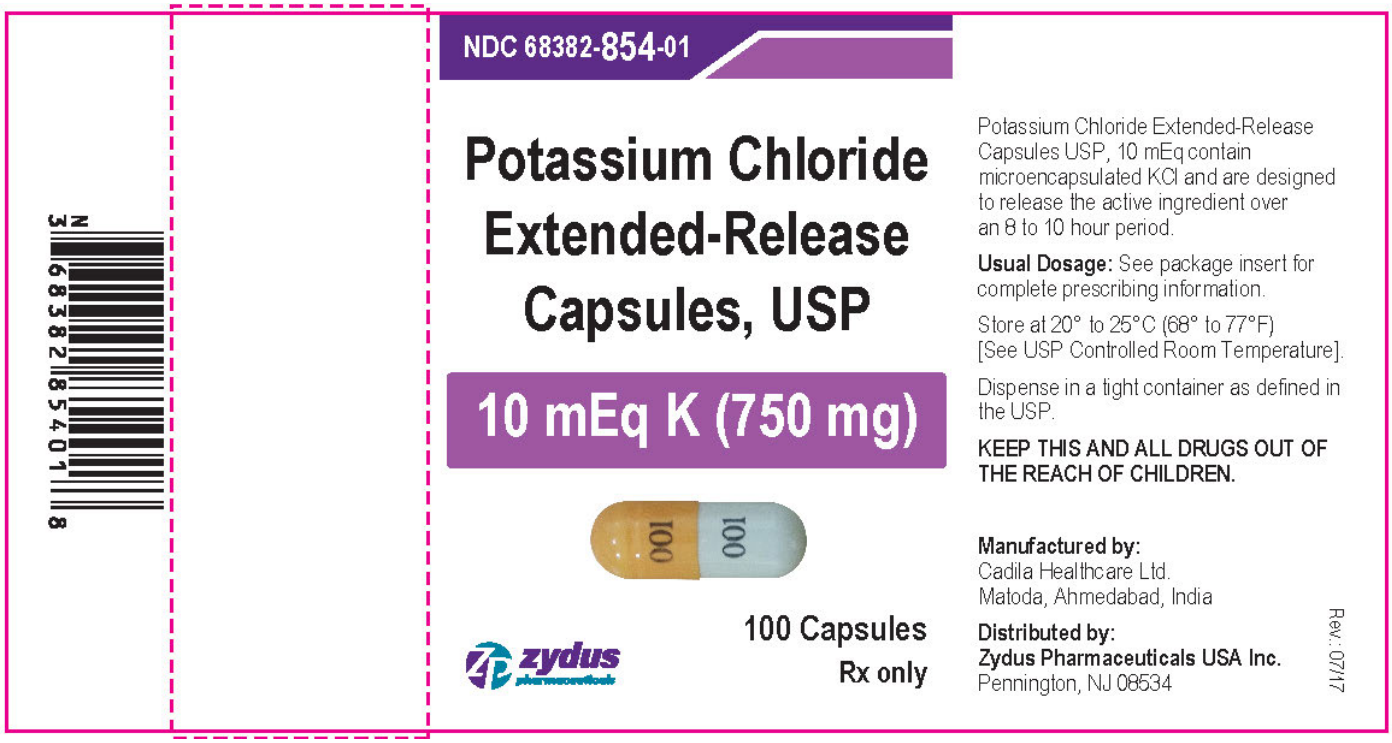
NDC 68382-854-01 in bottles of 100 capsules

Potassium Chloride Extened-release Capsules, USP

10 mEq K (750 mg)

Rx only

ZYDUS



POTASSIUM CHLORIDE

potassium chloride capsule, extended release

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:68382-853
Route of Administration	ORAL		

Active Ingredient/Active Moiety		
Ingredient Name	**Basis of Strength**	**Strength**
POTASSIUM CHLORIDE (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295O53K152)	POTASSIUM CHLORIDE	600 mg

Inactive Ingredients	
Ingredient Name	**Strength**
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)	
ETHYLCELLULOSE (45 MPA.S) (UNII: V7AD894FAZ)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	
FD&C BLUE NO. 2 (UNII: L06K8R7DQK)	
FD&C RED NO. 40 (UNII: WZB9127XOA)	
FERROSOFERRIC OXIDE (UNII: XM0M87F357)	
GELATIN (UNII: 2G86QN327L)	
HYPROMELLOSE 2910 (5 MPA.S) (UNII: R75537T0T4)	
POLYETHYLENE GLYCOL 8000 (UNII: Q662QK8M3B)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SHELLAC (UNII: 46N107B71O)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
SODIUM LAURYL SULFATE (UNII: 368GB5141J)	

TALC (UNII: 7SEV7J4R1U)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	

Product Characteristics			
Color	ORANGE (opaque pale orange cap) , ORANGE (opaque pale orange body)	**Score**	no score
Shape	CAPSULE	**Size**	21mm
Flavor		**Imprint Code**	002
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68382-853-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
2	NDC:68382-853-05	500 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
3	NDC:68382-853-10	1000 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
4	NDC:68382-853-77	10 in 1 CARTON	06/30/2019	
4	NDC:68382-853-30	10 in 1 BLISTER PACK; Type 0: Not a Combination Product		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA208445	06/30/2019	

POTASSIUM CHLORIDE

potassium chloride capsule, extended release

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:68382-854
Route of Administration	ORAL		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
POTASSIUM CHLORIDE (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295O53K152)	POTASSIUM CHLORIDE	750 mg

Inactive Ingredients

Ingredient Name	Strength
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)	
ETHYLCELLULOSE (45 MPA.S) (UNII: V7AD894FAZ)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	
FD&C BLUE NO. 2 (UNII: L06K8R7DQK)	
FD&C RED NO. 40 (UNII: WZB9127XOA)	

FERROSOFERRIC OXIDE (UNII: XM0M87F357)	
GELATIN (UNII: 2G86QN327L)	
HYPROMELLOSE 2910 (5 MPA.S) (UNII: R75537T0T4)	
POLYETHYLENE GLYCOL 8000 (UNII: Q662QK8M3B)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SHELLAC (UNII: 46N107B71O)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
SODIUM LAURYL SULFATE (UNII: 368GB5141J)	
TALC (UNII: 7SEV7J4R1U)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	

Product Characteristics

Color	WHITE (opaque white body) , ORANGE (opaque pale orange cap)	**Score**	no score
Shape	CAPSULE	**Size**	23mm
Flavor		**Imprint Code**	001
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68382-854-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
2	NDC:68382-854-05	500 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
3	NDC:68382-854-10	1000 in 1 BOTTLE; Type 0: Not a Combination Product	06/30/2019	
4	NDC:68382-854-77	10 in 1 CARTON	06/30/2019	
4	NDC:68382-854-30	10 in 1 BLISTER PACK; Type 0: Not a Combination Product		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA208445	06/30/2019	

Labeler - Zydus Pharmaceuticals (USA) Inc. (156861945)

Registrant - Zydus Pharmaceuticals (USA) Inc. (156861945)

Establishment

Name	Address	ID/FEI	Business Operations
Cadila Healthcare Limited		863362789	ANALYSIS(68382-853, 68382-854) , MANUFACTURE(68382-853, 68382-854)