POTASSIUM CHLORIDE- potassium chloride capsule, extended release Granules India Ltd

HIGHLIGHTS OF PRESCRIBING INFORMATION POTASSIUM CHLORIDE EXTENDED-RELEASE CAPSULES

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 use 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)
DOSAGE AND ADMINISTRATION
Monitor serum potassium and adjust dosage accordingly (2.1)
If serum potassium concentration is <2.5 mEq/L, use intravenous potassium instead of oral
supplementation. (2.1)
 Treatment of hypokalemia: Adults: Typical doses range from 40 to 100 mEq/day in 2 to 5 divided doses; limit doses to 40 mEq per
dose. (2.2)
• Pediatric patients: 2 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:
• 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: 8 mEq (600 mg) and 10 mEq (750 mg) (3)
CONTRAINDICATIONS Concomitant use with triamterene and amiloride. (4)
Gastrointestinal Irritation: Take with meals (5.1)
ADVERSE REACTIONS
Most common adverse reactions are nausea, vomiting, flatulence, abdominal pain/ discomfort, and diarrhea. (6)
To report SUSPECTED ADVERSE REACTIONS, contact Granules Pharmaceuticals Inc at 1-877-
770-3183 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch
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)
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: 4/2021

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* Sections or subsections omitted from the full prescribing information are not listed.

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, acidbase 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

8 mEq (600 mg): White opaque capsules printed with "G" on cap and "8 mEq" on the body.

10 mEq (750 mg): Dark blue opaque capsules printed with 'G' on cap and 10 mEq on the

body.

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-aldosterone 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

<u>Risk Summary</u>

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

<u>Risk Summary</u>

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 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 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 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.

Inactive ingredients: ethylcellulose, hydroxypropyl cellulose. The empty gelatin capsules contain gelatin and titanium dioxide; the 10 mEq capsules contain FD&C Blue #1, FD&C Red #3 and FD&C Yellow #6. In addition, for 8mEq capsule imprinting ink black contains shellac, propylene glycol, black iron oxide, potassium hydroxide and for 10mEq white ink contains shellac, propylene glycol, sodium hydroxide, povidone, titanium dioxide.

FDA approved dissolution test specifications differ from USP.

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 contain 600 mg and 750 mg of potassium chloride (equivalent to 8 mEq and 10 mEq, respectively).

Table 1: How Supplied

Dose	Color	Printing	NDC#: 62207-xxx-xx Bottle Count			
2036	COIDI	Frincing	90	100	500	1000
8 mEq (600 mg)	white	<u>"8 mEq" - body</u> "G" - cap	-	914-43	914-47	914-49
10 mEq (750 mg)	dark blue	"10" mEq - body	915-57		915-47	915-49

Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature.]

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

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 by:

Granules India Limited

Hyderabad-500 081, India

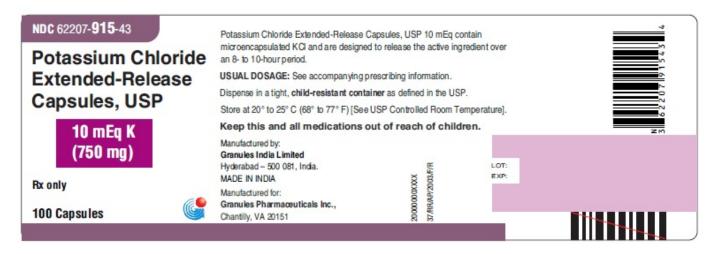
Distributed by:

Granules Pharmaceuticals Inc.

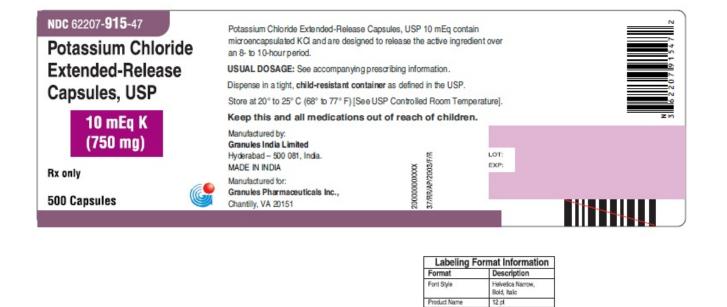
Chantilly, VA 20151

Rev.07/2020

PACKAGE LABEL.PRINCIPAL DISPLAY PANEL



Labeling Format Information Format Description			
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Sub Headings	11 pt		
Body Text	65 pt		
Version	01		
Revision	00		



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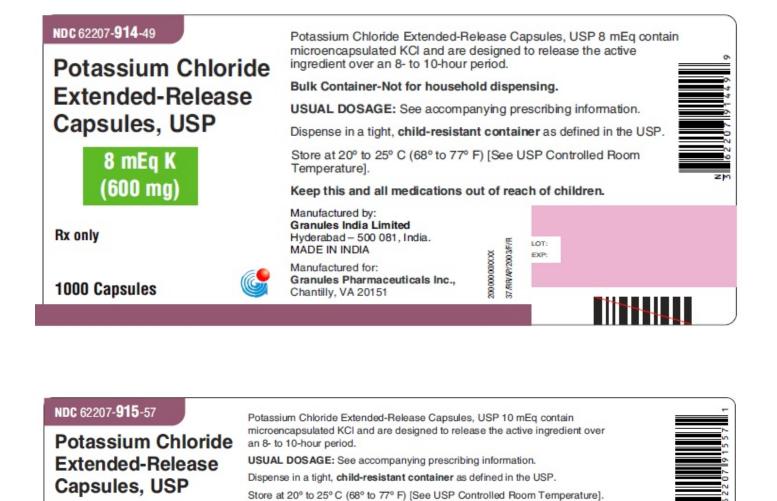
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Sub Headings

Body Text

		Version	0.5 pt	
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NDC 62207- 914 -47	Potassium Chloride Extended-Release Capsules,			5
Potassium Chloride	microencapsulated KCI and are designed to releas over an 8- to 10-hour period.	e the active ingredie	ent	2 7 7 L
	USUAL DOSAGE: See accompanying prescribing	6		
Extended-Release	Dispense in a tight, child-resistant container as de	207		
Capsules, USP	Store at 20° to 25° C (68° to 77° F) [See USP Cont	trolled Room Tempe	rature].	6 2
8 mEq K	Keep this and all medications out of reach of chi	ldren.		ZM
(600 mg)	Manufactured by: Granules India Limited Hyderabad – 500 081, India. MADE IN INDIA	2000000XXXX 37/RR/AP/2003/F/R	LOT: EXP:	
Rx only	Manufactured for:	000X		
500 Capsules	Granules Pharmaceuticals Inc., Chantilly, VA 20151	2000000XXXX 37/RR/AP/2003		
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NDC 62207- 914 -43	Potassium Chloride Extended-Release C			~
Potassium Chloride	microencapsulated KCI and are designed over an 8- to 10-hour period.	5 7 7		
	USUAL DOSAGE: See accompanying p	6		
Extended-Release	Dispense in a tight, child-resistant conta	2.03		
Capsules, USP				
	Store at 20° to 25° C (68° to 77° F) [See	USP Controlled	Room Temperature].	9
	Store at 20° to 25° C (68° to 77° F) [See Keep this and all medications out of rea		Room Temperature].	2 M
8 mEq K (600 mg)		ach of children.	LOT: EXP:	ZM
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8 mEq K (600 mg)	Keep this and all medications out of rea Manufactured by: Granules India Limited Hyderabad – 500 081, India. MADE IN INDIA		LOT:	ZM



Keep this and all medications out of reach of children.

LOT:

EXP:

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Manufactured by:

MADE IN INDIA

Granules India Limited Hyderabad - 500 081, India.

Manufactured for:

Chantilly, VA 20151

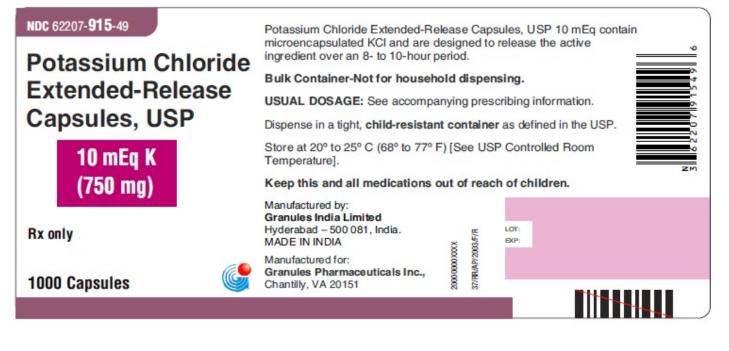
Granules Pharmaceuticals Inc.,

10 mEg K

(750 ma)

Rx only

90 Capsules



POTASSIUM CHLORIDE potassium chloride capsule, extended release **Product Information Product Type** HUMAN PRESCRIPTION DRUG NDC:62207-914 Item Code (Source) **Route of Administration** ORAL **Active Ingredient/Active Moiety Basis of Ingredient Name** Strength Strength POTASSIUM CHLORIDE (UNII: 660YQ98I10) (POTASSIUM CATION -POTASSIUM 600 mg CHLORIDE UNII:295053K152) **Inactive Ingredients Ingredient Name** Strength FERROSOFERRIC OXIDE (UNII: XM0M87F357) ETHYLCELLULOSE (20 MPA.S) (UNII: BJG0S321QY) GELATIN (UNII: 2G86QN327L) HYDROXYPROPYL CELLULOSE (110000 WAMW) (UNII: 5Y0974F5PW) POTASSIUM HYDROXIDE (UNII: WZH3C48M4T) **PROPYLENE GLYCOL** (UNII: 6DC9Q167V3) SHELLAC (UNII: MB5IUD6JUA) TITANIUM DIOXIDE (UNII: 15FIX9V2JP) **Product Characteristics** Color white Score no score CAPSULE Size 24mm Shape

	avor		Imprint Code	2	G	;8mEq	
Contains							
Packaging							
#	ltem Code	Pa	ckage Description	Marketing Date			ting End ate
1	NDC:62207-914- 43	100 in 1 BOTT Product	LE; Type 0: Not a Combination	01/01/2023			
2	NDC:62207-914- 49	1000 in 1 BOT Product	TLE; Type 0: Not a Combination	01/01/2023			
3	NDC:62207-914- 47	500 in 1 BOTT Product	LE; Type 0: Not a Combination	01/01/2023			
м	arketing	Informat	ion				
	Marketing		tion Number or Monograph	Marketii	ng Start	Marke	ting End
						_	.
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P(00 P Pi	DA DTASSIUM tassium chlorid roduct Infor roduct Type	I CHLORI de capsule, e mation	6 DE extended release HUMAN PRESCRIPTION DRUG	01/01/2023			
P(DO PI Ro	DA DTASSIUM tassium chlorid roduct Infor roduct Type	I CHLORI de capsule, e mation stration	6 DE extended release HUMAN PRESCRIPTION DRUG ORAL	01/01/2023	(Source)	NDC:6	
P (P) P (R)	DA DTASSIUM tassium chlorid roduct Infor roduct Type oute of Admini	I CHLORI de capsule, e mation stration	6 DE extended release HUMAN PRESCRIPTION DRUG ORAL	01/01/2023		NDC:6	

Inactive Ingredients				
Ingredient Name	Strength			
ETHYLCELLULOSE (20 MPA.S) (UNII: BJG0S321QY)				
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)				
FD&C RED NO. 3 (UNII: PN2ZH5LOQY)				
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)				
GELATIN (UNII: 2G86QN327L)				
HYDROXYPROPYL CELLULOSE (110000 WAMW) (UNII: 5Y0974F5PW)				
POVIDONE (UNII: FZ989GH94E)				
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)				
SODIUM HYDROXIDE (UNII: 55X04QC32I)				
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)				
SHELLAC (UNII: 46N107B710)				

P	roduct Chara	acteristics				
Color		blue (Dark Blue)	Score		no score	
Shape		CAPSULE	Size		23mm	
FI	avor		Imprint	t Code	G;10mEq	
С	ontains					
Pa	ackaging					
#	Item Code	Package Desc	ription	Marketing Start Date	Marketing End Date	
1	NDC:62207-915- 57	90 in 1 BOTTLE; Type 0: Not Product	a Combination (01/01/2023		
2	NDC:62207-915- 49	1000 in 1 BOTTLE; Type 0: N Product	ot a Combination	01/01/2023		
3	NDC:62207-915- 47	00 in 1 BOTTLE; Type 0: Not a Combination roduct		2207-915- 500 in 1 BOTTLE; Type 0: Not a Combination 01/01/2023 Product		
4	NDC:62207-915- 43	100 in 1 BOTTLE; Type 0: No Product	t a Combination	01/01/2023		
Marketing Information						
	Marketing Category	Application Number Citatio		Marketing Start Date	Marketing End Date	
	IDA	ANDA214686		01/01/2023		

Labeler - Granules India Ltd (915000087)

Establishment					
Name	Address	ID/FEI	Business Operations		
Granules India Ltd		918609236	analysis(62207-914, 62207-915) , label(62207-914, 62207-915) , manufacture(62207-914, 62207-915) , pack(62207-914, 62207-915)		

Revised: 1/2023

Granules India Ltd