

**POTASSIUM CHLORIDE- potassium chloride injection, solution, concentrate**  
**Hospira, Inc.**

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**Potassium  
Chloride  
only**

**Rx**

for Injection  
**Concentrate, USP**

<b>CONCENTRATE</b>
<i>MUST BE DILUTED BEFORE USE.</i>

**FOR INTRAVENOUS INFUSION ONLY;  
MUST BE DILUTED PRIOR TO INJECTION.**  
**Fliptop Vials**

**DESCRIPTION**

Potassium Chloride for Injection Concentrate, USP, is a sterile, nonpyrogenic, concentrated solution of potassium chloride, USP in water for injection administered by intravenous infusion only after dilution in a larger volume of fluid. They are provided in the following variety of concentrations and sizes comprising a choice of single-dose containers, all designed to provide the commonly prescribed amounts of potassium chloride for single-dose infusion after dilution in suitable large volume parenterals.

<b>Additive Solution* (conc. &amp; size)</b>	<b>K<sup>+</sup> mEq/mL</b>	<b>KCl mg/mL</b>	<b>mOsmol/mL (calc.)</b>
10 mEq/5 mL	2	149	4
20 mEq/10 mL	2	149	4
30 mEq/15 mL	2	149	4
40 mEq/20 mL	2	149	4

\* May contain hydrochloric acid for pH adjustment.

The solutions contain no bacteriostat, antimicrobial agent or added buffer (except for pH adjustment) and each is intended only for single-dose injection (after dilution). When smaller doses are required, discard the unused portion. The pH is 4.6 (4.0 to 8.0).

Potassium Chloride for Injection Concentrate, USP (appropriately diluted) is a parenteral fluid and electrolyte replenisher.

Potassium Chloride, USP is chemically designated KCl, a white granular powder freely soluble in water.

The semi-rigid material used for the plastic vials is fabricated from a specially formulated polyolefin. It is a copolymer of ethylene and propylene. The safety of the plastic has been confirmed by tests in animals according to USP biological standards for plastic containers. The container requires no vapor barrier to maintain the proper drug concentration.

**CLINICAL PHARMACOLOGY**

Potassium is the chief cation of body cells (160 mEq/liter of intracellular water) and is concerned with the maintenance of body fluid composition and electrolyte balance. Potassium participates in carbohydrate utilization and protein synthesis, and is critical in the regulation of nerve conduction and muscle contraction, particularly in the heart. Chloride, the major extracellular anion, closely follows the metabolism of sodium, and changes in the acid-base balance of the body are reflected by changes in the chloride concentration.

Normally about 80 to 90% of the potassium intake is excreted in the urine, the remainder in the stools and, to a small extent, in perspiration. The kidney does not conserve potassium well so that during fasting, or in patients on a potassium-free diet, potassium loss from the body continues, resulting in potassium depletion. A deficiency of either potassium or chloride will lead to a deficit of the other.

### **INDICATIONS AND USAGE**

Potassium Chloride for Injection Concentrate, USP is indicated in the treatment of potassium deficiency states when oral replacement is not feasible.

### **CONTRAINDICATIONS**

Potassium Chloride for Injection Concentrate, USP is contraindicated in diseases where high potassium levels may be encountered, and in patients with hyperkalemia, renal failure and in conditions in which potassium retention is present.

### **WARNINGS**

#### **Potentially Fatal Cardiac Adverse Reactions with Undiluted Intravenous Administration**

Direct patient injection of potassium chloride at this concentration may be instantaneously fatal. Potassium Chloride for Injection Concentrate must be diluted before administration. Fatal cardiac arrhythmia and cardiac arrest have occurred when potassium chloride was administered in an undiluted form.

To avoid potassium intoxication, do not infuse these solutions rapidly. In patients with renal insufficiency, administration of potassium chloride may cause potassium intoxication and life-threatening hyperkalemia.

The administration of intravenous solutions can cause fluid and/or solute overload resulting in dilution of serum electrolyte concentrations, overhydration, congested states or pulmonary edema. The risk of dilutional states is inversely proportional to the electrolyte concentration. The risk of solute overload causing congested states with peripheral and pulmonary edema is directly proportional to the electrolyte concentration.

In patients with diminished renal function, administration of solutions containing potassium ions may result in potassium retention.

This product contains aluminum that may be toxic. Aluminum may reach toxic levels with prolonged parenteral administration if kidney function is impaired. Premature neonates are particularly at risk because their kidneys are immature, and they require large amounts of calcium and phosphate solutions, which contain aluminum.

Research indicates that patients with impaired kidney function, including premature neonates, who receive parenteral levels of aluminum at greater than 4 to 5 mcg/kg/day accumulate aluminum at levels associated with central nervous system and bone toxicity. Tissue loading may occur at even lower rates of administration.

## **PRECAUTIONS**

### **General**

Clinical evaluation and periodic laboratory determinations are necessary to monitor changes in fluid balance, electrolyte concentrations, and acid-base balance during prolonged parenteral therapy or whenever the condition of the patient warrants such evaluation. Significant deviations from normal concentrations may require the use of additional electrolyte supplements, or the use of electrolyte-free dextrose solutions to which individualized electrolyte supplements may be added.

Potassium therapy should be guided primarily by serial electrocardiograms, especially in patients receiving digitalis. Serum potassium levels are not necessarily indicative of tissue potassium levels. Solutions containing potassium should be used with caution in the presence of cardiac disease, particularly in the presence of renal disease, and in such instances, cardiac monitoring is recommended.

Solutions containing dextrose should be used with caution in patients with overt or known subclinical diabetes mellitus, or carbohydrate intolerance for any reason.

If the administration is controlled by a pumping device, care must be taken to discontinue pumping action before the container runs dry or air embolism may result.

### **Pregnancy**

*Teratogenic Effects:* Animal reproduction studies have not been conducted with potassium chloride. It is also not known whether potassium chloride can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Potassium chloride should be given to a pregnant woman only if clearly needed.

## **ADVERSE REACTIONS**

Reactions which may occur because of the solution or the technique of administration include febrile response, infection at the site of injection, venous thrombosis or phlebitis extending from the site of injection, extravasation, hypervolemia, and hyperkalemia.

Too rapid infusion of hypertonic solutions may cause local pain and, rarely, vein irritation. Rate of administration should be adjusted according to tolerance.

Reactions reported with the use of potassium-containing solutions include nausea, vomiting, abdominal pain and diarrhea. The signs and symptoms of potassium intoxication include paresthesias of the extremities, areflexia, muscular or respiratory paralysis, mental confusion, weakness, hypotension, cardiac arrhythmias, heart block, electrocardiographic abnormalities and cardiac arrest. Potassium deficits result in disruption of neuromuscular function, and intestinal ileus and dilatation.

If an adverse reaction does occur, discontinue the infusion, evaluate the patient, institute appropriate therapeutic countermeasures and save the remainder of the fluid for examination if deemed necessary.

## **OVERDOSAGE**

In the event of fluid overload during parenteral therapy, re-evaluate the patient's condition, and institute appropriate corrective treatment.

In the event of overdosage with potassium-containing solutions, discontinue the infusion immediately, and institute corrective therapy to reduce serum potassium levels.

Treatment of hyperkalemia includes the following:

- Dextrose Injection USP, 10% or 25%, containing 10 units of crystalline insulin per 20 grams of dextrose administered intravenously, at a rate of 300 to 500 mL per hour.
- Absorption and exchange of potassium using sodium or ammonium cycle cation exchange resin, orally and as retention enema.
- Hemodialysis and peritoneal dialysis. The use of potassium-containing foods or medications must be eliminated. However, in cases of digitalization, too rapid a lowering of plasma potassium concentration can cause digitalis toxicity.

## **DOSAGE AND ADMINISTRATION**

Potassium Chloride for Injection Concentrate, USP must be diluted before administration. Care must be taken to ensure there is complete mixing of the potassium chloride with the large volume fluid, particularly if soft or bag type containers are used.

The dose and rate of administration are dependent upon the specific condition of each patient.

If the serum potassium level is greater than 2.5 mEq/liter, potassium can be given at a rate not to exceed 10 mEq/hour in a concentration of up to 40 mEq/liter. The 24-hour total dose should not exceed 200 mEq.

If urgent treatment is indicated (serum potassium level less than 2.0 mEq/liter with electrocardiographic changes and/or muscle paralysis) potassium chloride may be infused very cautiously at a rate of up to 40 mEq/hour. In such cases, continuous cardiac monitoring is essential. As much as 400 mEq may be administered in a 24 hour period. In critical conditions, potassium chloride may be administered in saline (unless contraindicated), rather than in dextrose containing fluids, as dextrose may lower serum potassium levels.

Prior to entering vial, remove the metal seal and cleanse the rubber closure with a suitable antiseptic agent.

Parenteral drug products should be inspected visually for particulate matter and discoloration, whenever solution and container permit.

TO PREVENT NEEDLE-STICK INJURIES, NEEDLES SHOULD NOT BE RECAPPED, PURPOSELY BENT, OR BROKEN BY HAND.

## **HOW SUPPLIED**

Potassium Chloride for Injection Concentrate, USP, is supplied in single-dose containers as follows:

<b>Unit of Sale</b>	<b>Concentration</b>
<b>NDC 0409-6635-01</b> Tray of 25 single-dose containers	10 mEq/5 mL (2 mEq/mL)
<b>NDC 0409-6636-01</b> Tray of 25 single-dose containers	30 mEq/15 mL (2 mEq/mL)
<b>NDC 0409-6651-06</b> Tray of 25 single-dose containers	20 mEq/10 mL (2 mEq/mL)

**NDC 0409-6653-05**  
Tray of 25 single-dose  
containers

40 mEq/20 mL  
(2 mEq/mL)

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

Distributed by: Hospira Inc., Lake Forest, IL 60045  
USA



LAB-1319-2.0

Revised: 10/2022

**PRINCIPAL DISPLAY PANEL - 5 mL Vial Label**

Potassium Chloride  
for Injection Concentrate, USP

10 mEq/5 mL (2 mEq/mL)

CONCENTRATE  
MUST BE DILUTED BEFORE USE.

LOT ##-###-AA  
EXP DMMYYYY

The vial label is a rounded rectangle with a pink border. It contains text for product identification, dosage, and usage instructions. A barcode on the right side indicates a 7.5 mL volume.

**Potassium Chloride**  
for Injection Concentrate, USP  
**10 mEq/5 mL (2 mEq/mL)**  
**CONCENTRATE**  
*MUST BE DILUTED BEFORE USE.*

5 mL Single-dose  
For intravenous use.

**KCl** Each mL contains potassium chloride,  
2 mEq (149 mg). May contain HCl for pH  
adjustment. Sterile, nonpyrogenic. Contains no more  
than 340 mcg/L of aluminum. 4 mOsmol/mL (calc).  
Discard unused portion. Usual dosage: See insert.

Dist. by Hospira, Inc.,  
Lake Forest, IL 60045 USA

NDC 0409-6635-18  
Rx only

RL-7589

Hospira

FP0/7.5 Mil

LOT ##-###-AA  
EXP DMMYYYY

**PRINCIPAL DISPLAY PANEL - 5 mL Vial Tray**

Potassium Chloride  
for Injection Concentrate, USP

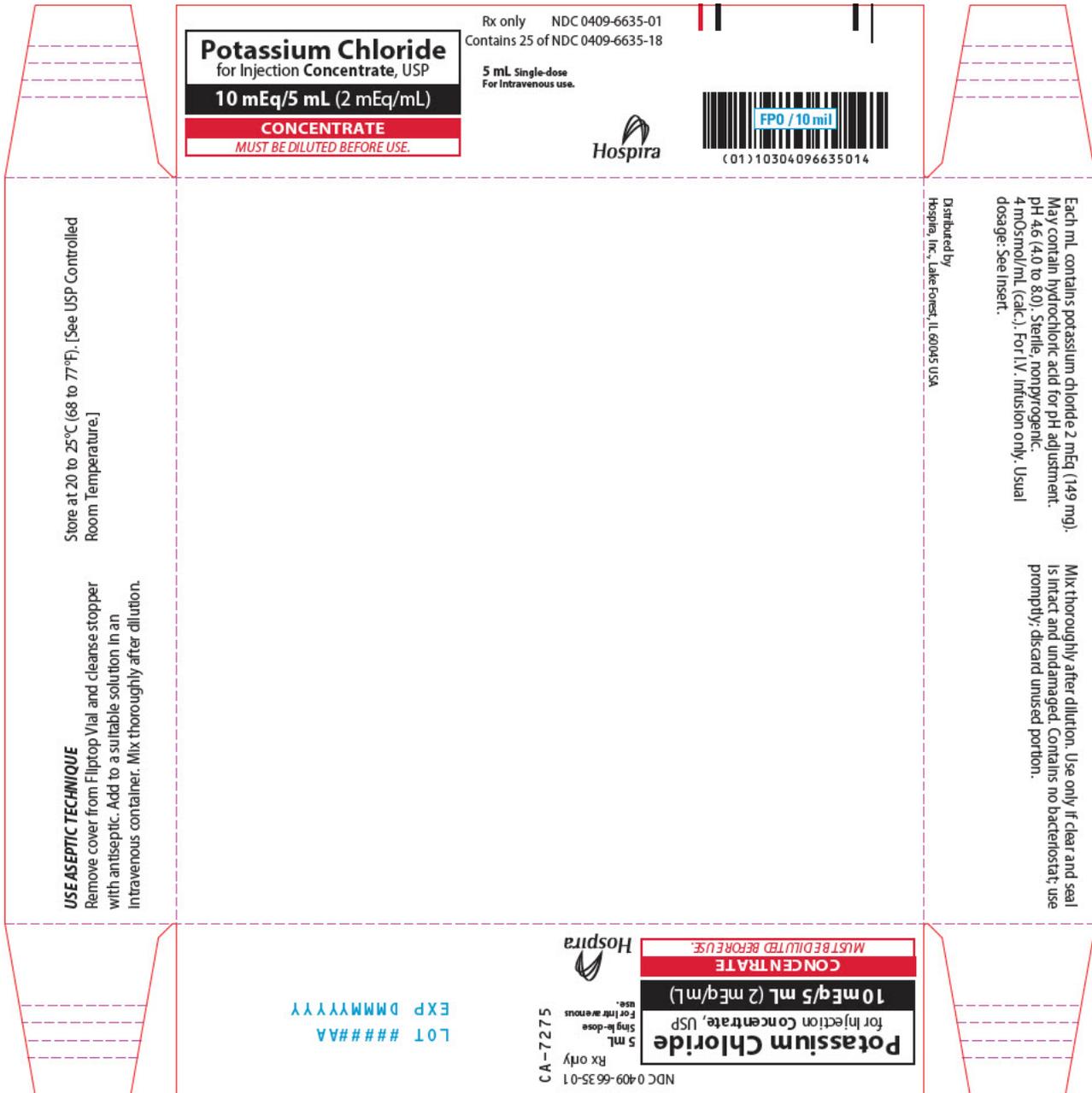
10 mEq/5 mL (2 mEq/mL)

CONCENTRATE  
MUST BE DILUTED BEFORE USE.

Rx only  
NDC 0409-6635-01  
Contains 25 of NDC 0409-6635-18

5 mL Single-dose  
For Intravenous use.

Hospira



**PRINCIPAL DISPLAY PANEL - 10 mL Vial Label**

Potassium Chloride  
for Injection Concentrate, USP  
20 mEq/10 mL (2 mEq/mL)

CONCENTRATE  
MUST BE DILUTED BEFORE USE.

LOT ##-###-AA  
EXP DMMYYYY

<b>Potassium Chloride</b> for Injection Concentrate, USP <b>20 mEq/10 mL (2 mEq/mL)</b> <b>CONCENTRATE</b> <i>MUST BE DILUTED BEFORE USE.</i>	10 mL Single-dose For Intravenous use. <b>KCI</b> Each mL contains potassium chloride, 2 mEq (149 mg). May contain HCl for pH adjustment. Sterile, nonpyrogenic. 4 mOsmol/mL (calc). Usual dosage: See insert. Discard unused portion. Contains no more than 100 mcg/L of aluminum. Dist. by Hospira, Inc., Lake Forest, IL 60045 USA	NDC 0409-6651-19 Rx only RL-7591 	
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LOT ##-###-AA  
EXP DMMYYYY

**PRINCIPAL DISPLAY PANEL - 10 mL Vial Tray**

Potassium Chloride  
for Injection Concentrate, USP  
20 mEq/10 mL (2 mEq/mL)

CONCENTRATE  
MUST BE DILUTED BEFORE USE.

Rx only  
NDC 0409-6651-06  
Contains 25 of NDC 0409-6651-19

10 mL Single-dose  
For Intravenous use.

Hospira



## PRINCIPAL DISPLAY PANEL - 20 mL Vial Label

20 mL Single-dose For Intravenous use.

Potassium Chloride  
for Injection Concentrate, USP

40 mEq/20 mL (2 mEq/mL)

**CONCENTRATE**  
MUST BE DILUTED BEFORE USE.

Distributed by Hospira, Inc., Lake Forest, IL 60045 USA

20 mL Single-dose For Intravenous use.

Rx only

NDC 0409-6653-18

**Potassium Chloride**  
for Injection Concentrate, USP

**40 mEq/20 mL (2 mEq/mL)**

**CONCENTRATE**

*MUST BE DILUTED BEFORE USE.*

**KCl** Each mL contains potassium chloride, 2 mEq (149 mg). May contain HCl for pH adjustment. Sterile, nonpyrogenic. 4 mOsmol/mL (calc). Usual dosage: See insert. **Discard unused portion. Contains no more than 100 mcg/L of aluminum.**



LOT ##-##-##-AA  
EXP DMMYYYY

Distributed by Hospira, Inc., Lake Forest, IL 60045 USA

RL-7593

  
**Hospira**

### PRINCIPAL DISPLAY PANEL - 20 mL Vial Tray

Potassium Chloride  
for Injection Concentrate, USP

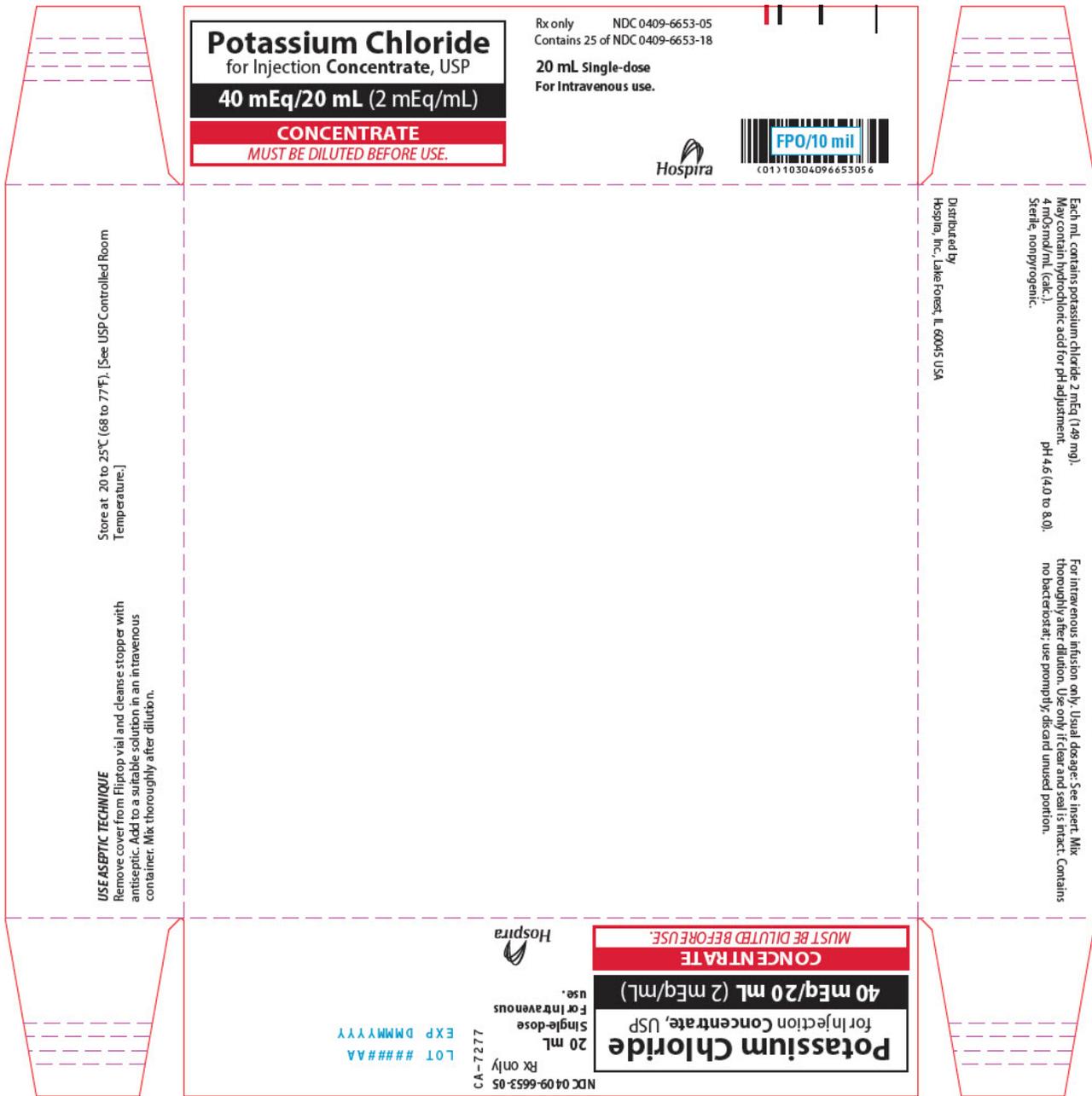
40 mEq/20 mL (2 mEq/mL)

CONCENTRATE  
MUST BE DILUTED BEFORE USE.

Rx only  
NDC 0409-6653-05  
Contains 25 of NDC 0409-6653-18

20 mL Single-dose  
For Intravenous use.

Hospira



**PRINCIPAL DISPLAY PANEL - 15 mL Vial Label**

**Potassium Chloride**  
for Injection **Concentrate, USP**

**30 mEq/15 mL (2 mEq/mL)**

**CONCENTRATE**

*MUST BE DILUTED BEFORE USE.*

Hospira, Inc., Lake Forest, IL 60045 USA

# Potassium Chloride

for Injection Concentrate, USP

**30 mEq/15 mL (2 mEq/mL)**

**CONCENTRATE**

*MUST BE DILUTED BEFORE USE.*

Hospira, Inc., Lake Forest, IL 60045 USA

15 mL Single-dose  
For Intravenous use.

NDC 0409-6636-18

Rx only

**KCl**

Each mL contains potassium chloride, 2 mEq (149 mg). May contain HCl for pH adjustment. Sterile, nonpyrogenic. 4 mOsmol/mL (calc). Usual dosage: See insert. Discard unused portion. Contains no more than 100 mcg/L of aluminum.

RL-4574

  
Hospira



## IM-3544

**Potassium Chloride**  
for Injection Concentrate, USP  
**30 mEq/15 mL (2 mEq/mL)**  
**CONCENTRATE**  
*MUST BE DILUTED BEFORE USE.*

25 Units/NDC 0409-6636-01  
Rx only

15 mL Single-dose  
For Intravenous use.

  
Hospira



(01)10304096636011

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

**USE ASEPTIC TECHNIQUE**  
Remove cover from FlipTop Vial and cleanse stopper with antiseptic.  
Add to a suitable solution in an I.V. container.  
Mix thoroughly after dilution.

Hospira, Inc., Lake Forest, IL 60045 USA

Each mL contains potassium chloride 2 mEq (149 mg). May contain hydrochloric acid for pH adjustment.  
4 mOsmol/mL (calc).  
Sterile, nonpyrogenic.  
pH 4.6 (4.0 to 8.0).  
For I.V. infusion only. Usual dosage: See insert. Mix thoroughly after dilution. Use only if clear and seal is intact and undamaged. Contains no bacteriostat; use promptly; discard unused portion.

IM-3544

  
Hospira

25 Units/NDC 0409-6636-01  
Rx only  
15 mL Single-dose  
For intravenous use.

**Potassium Chloride**  
for Injection Concentrate, USP  
**30 mEq/15 mL (2 mEq/mL)**  
**CONCENTRATE**  
*MUST BE DILUTED BEFORE USE.*

# POTASSIUM CHLORIDE

potassium chloride injection, solution, concentrate

## Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:0409-6635
<b>Route of Administration</b>	INTRAVENOUS		

## Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
<b>POTASSIUM CHLORIDE</b> (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295O53K152, CHLORIDE ION - UNII:Q32ZN48698)	POTASSIUM CHLORIDE	149 mg in 1 mL

## Inactive Ingredients

Ingredient Name	Strength
<b>WATER</b> (UNII: 059QF0KO0R)	
<b>HYDROCHLORIC ACID</b> (UNII: QTT17582CB)	

## Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0409-6635-01	25 in 1 TRAY	09/19/2005	
1	NDC:0409-6635-18	5 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA080205	09/19/2005	

# POTASSIUM CHLORIDE

potassium chloride injection, solution, concentrate

## Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:0409-6651
<b>Route of Administration</b>	INTRAVENOUS		

## Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
<b>POTASSIUM CHLORIDE</b> (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295O53K152, CHLORIDE ION - UNII:Q32ZN48698)	POTASSIUM CHLORIDE	149 mg in 1 mL

## Inactive Ingredients

Ingredient Name		Strength
WATER (UNII: 059QF0KO0R)		
HYDROCHLORIC ACID (UNII: QTT17582CB)		

Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0409-6651-06	25 in 1 TRAY	11/10/2005	
1	NDC:0409-6651-19	10 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		

Marketing Information			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA080205	11/10/2005	

POTASSIUM CHLORIDE			
potassium chloride injection, solution, concentrate			

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0409-6653
Route of Administration	INTRAVENOUS		

Active Ingredient/Active Moiety			
Ingredient Name	Basis of Strength	Strength	
POTASSIUM CHLORIDE (UNII: 660YQ98110) (POTASSIUM CATION - UNII:295O53K152, CHLORIDE ION - UNII:Q32ZN48698)	POTASSIUM CHLORIDE	149 mg in 1 mL	

Inactive Ingredients	
Ingredient Name	Strength
WATER (UNII: 059QF0KO0R)	
HYDROCHLORIC ACID (UNII: QTT17582CB)	

Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0409-6653-05	25 in 1 TRAY	08/08/2005	
1	NDC:0409-6653-18	20 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		

Marketing Information			
Marketing	Application Number or Monograph	Marketing Start	Marketing End

Category	Citation	Date	Date
ANDA	ANDA080205	08/08/2005	

## POTASSIUM CHLORIDE

potassium chloride injection, solution, concentrate

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0409-6636
Route of Administration	INTRAVENOUS		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
POTASSIUM CHLORIDE (UNII: 660YQ98I10) (POTASSIUM CATION - UNII:295O53K152, CHLORIDE ION - UNII:Q32ZN48698)	POTASSIUM CHLORIDE	149 mg in 1 mL

### Inactive Ingredients

Ingredient Name	Strength
WATER (UNII: 059QF0K00R)	
HYDROCHLORIC ACID (UNII: QTT17582CB)	

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0409-6636-01	25 in 1 TRAY	08/12/2005	04/01/2013
1	NDC:0409-6636-18	15 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		

### Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA080205	08/12/2005	04/01/2013

**Labeler** - Hospira, Inc. (141588017)

### Establishment

Name	Address	ID/FEI	Business Operations
Hospira, Inc.		093132819	ANALYSIS(0409-6635, 0409-6636, 0409-6651, 0409-6653) , LABEL(0409-6635, 0409-6636, 0409-6651, 0409-6653) , MANUFACTURE(0409-6635, 0409-6636, 0409-6651, 0409-6653) , PACK(0409-6635, 0409-6636, 0409-6651, 0409-6653)

### Establishment

Name	Address	ID/FEI	Business Operations
Hospira, Inc.		827731089	ANALYSIS(0409-6635, 0409-6636, 0409-6651, 0409-6653)

## Establishment

Name	Address	ID/FEI	Business Operations
Pfizer Healthcare India Private Limited		860037912	ANALYSIS(0409-6635, 0409-6636, 0409-6651, 0409-6653) , LABEL(0409-6635, 0409-6636, 0409-6651, 0409-6653) , MANUFACTURE(0409-6635, 0409-6636, 0409-6651, 0409-6653) , PACK(0409-6635, 0409-6636, 0409-6651, 0409-6653)

Revised: 10/2022

Hospira, Inc.