

## COMMON TECHNICAL DOCUMENT

**UWANS POTASSIUM** (Potassium Chloride for Injection Concentrate USP 15% w/v)

### 1.3.1 SUMMARY OF PRODUCT CHARACTERISTICS PRODUCT INFORMATION

#### 01. NAME OF THE MEDICINAL PRODUCT

- a) **TRADE NAME** : UWANS POTASSIUM
- b) **GENERIC NAME** : Potassium Chloride for Injection Concentrate USP 15%  
w/v

#### 02. QUALITATIVE AND QUANTITATIVE COMPOSITION

##### COMPOSITION

##### Each ml Contains:

Potassium chloride USP 150 mg  
Eq. to 2.01 MEq of potassium and 4.023 mOsmol per ml.  
Water for injection USP.....q.s.

#### 03. PHARMACEUTICAL FORM

Injection

#### 4. Clinical particulars

##### 4.1 Therapeutic indications

Potassium Chloride Concentrate 15% is used as a source of the potassium cation for the treatment or prevention of potassium depletion in patients for whom dietary measures or oral medication are inadequate. Potassium salts may also be used cautiously in those taking digoxin where potassium depletion may cause arrhythmias. Potassium Chloride Concentrate 15% must be administered by slow IV, as a dilute solution.

##### 4.2 Posology and method of administration

###### Adults (including elderly) and Children:

Potassium Chloride Concentrate 15% must be diluted by adding to a large volume intravenous fluid before use. For example, 10 mls diluted with not less than 500 mls 0.9% Sodium Chloride Intravenous Infusion BP, or other suitable diluent, and mixed well.

Dosage depends on the serum ionogram value and the acid-base state. A potassium deficiency is calculated according to the formula:

$$\text{MMOL Potassium} = \text{KG BW} \times 0.2 \times 2 \times (4.5 - \text{actual serum potassium (MMOL)})$$

(The extracellular volume is calculated from the body weight in KG x 0.2).

It is recommended not to exceed 2-3 MMOL potassium per kg body weight in 24 hours.

**4.3 Contraindications**

Hyperkalaemia, hyperchloraemia, impaired renal function with oliguria, anuria or azotaemia, Addison's disease, acute dehydration and heat cramps.

**4.4 Special warnings and precautions for use**

Potassium Chloride Concentrate 15% must not be injected undiluted.

Plasma potassium concentration must be measured at regular intervals to avoid the development of hyperkalaemia, especially in patients with renal impairment.

ECG monitoring facilities should be available.

Initial potassium replacement therapy should not involve glucose infusions, because glucose may cause a further decrease in the plasma potassium concentration.

Potassium supplements should be administered with caution in patients with cardiac disease and in patients who are receiving potassium sparing diuretics or other medications which may increase plasma potassium levels.

**4.5 Interaction with other medicinal products and other forms of interaction**

*Potassium sparing diuretics:*

Potassium supplements should not be administered with potassium sparing diuretics (such as amiloride, spironolactone and triamterene), particularly in patients with impaired renal function. Any patients on this combination require close monitoring in order to diagnose a potential hyperkalaemic condition as soon as possible.

*Angiotensin-converting enzyme inhibitors and angiotensin II receptor antagonists:*

Patients taking ACE-inhibitors or angiotensin II receptor antagonists, especially those with impaired renal function, should be closely monitored, as the potassium sparing effect in combination with potassium infusion may result in hyperkalaemia.

*Ciclosporin:*

Concurrent use of ciclosporin may increase the risk of hyperkalaemia.

*Glucose Infusion:*

Concomitant use of glucose infusions in hypokalaemic patients may cause a further decrease in plasma potassium concentrations.

**4.6 Pregnancy and lactation**

Potassium Chloride Concentrate 15% may be used during pregnancy and lactation under the supervision of the prescribing physician.

**4.7 Effects on ability to drive and use machines**

Not known.

**4.8 Undesirable effects**

Pain at the injection site and phlebitis may occur during IV administration of solutions containing 30 MMOL potassium or more per litre.

Hyperkalaemia is the most common and serious hazard of potassium therapy.

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard).

**4.9 Overdose**

Clinical signs and symptoms of potassium overdosage include: Paraesthesia of the extremities, listlessness, mental confusion, weakness or heaviness of the legs, flaccid paralysis, cold skin, grey pallor, peripheral vascular collapse, fall in blood pressure, cardiac arrhythmias and heart block. Extremely high plasma potassium concentrations (8-11 MMOL/litre) may cause death from cardiac depression, arrhythmias or arrest.

Cardiac arrhythmias or a serum concentration above 6.5 MMOL/litre, require immediate attention and may be treated by intravenous injection over 1 – 5 minutes of 10 – 20 ml of 10% Calcium Gluconate Injection B.P. with E.C.G. monitoring. Serum concentrations may be reduced by infusion of 300 – 500 mls per hour of 10% - 25% glucose solutions containing up to 10 units of insulin for each 20 g of glucose, or by the infusion of sodium bicarbonate solution.

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#### **5. Pharmacological properties**

##### **5.1 Pharmacodynamics properties**

Potassium is the major cation of intracellular fluid and is essential for maintenance of acid-base balance, is tonicity and the electrodynamic characteristics of the cell. Potassium chloride is used as a source of the potassium cation for treatment or prevention of potassium depletion in patients in whom dietary measures are inadequate. Potassium chloride may also be used cautiously to abolish arrhythmias or cardiac glycoside toxicity precipitated by a loss of potassium.

##### **5.2 Pharmacokinetic properties**

Potassium chloride is generally readily absorbed from the gastro-intestinal tract. Potassium is excreted mainly by the kidneys; it is secreted in the distal tubules which are also the site of sodium-potassium exchange. The capacity of the kidneys to conserve potassium is poor and urinary excretion of potassium continues even when there is severe depletion. Tubular secretion of potassium is influenced by several factors, including chloride ion concentration, hydrogen ion exchange, acid-base equilibrium and adrenal hormones. Some potassium is excreted in the faeces and small amounts may also be excreted in saliva, sweat, bile and pancreatic juice.

##### **5.3 Preclinical safety data**

No further information other than that which is included in the Summary of Product Characteristics.

#### **6. Pharmaceutical particulars**

##### **6.1 List of excipients**

Water for Injections

##### **6.2 Incompatibilities**

The compatibility of the large volume IV fluid intended for dilution should be checked before use.

##### **6.3 Shelf life**

36 Months.

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**6.4 Special precautions for storage**

Store between temperatures 8°C to 25°C. Protect from light. Keep out of the reach of the children.

**6.5 Nature and contents of container**

5 Ampoules of 10 ml enclosed in plastic tray & 2 trays are packed in a printed box.

**6.6 Special precautions for disposal and other handling**

Use as directed by a physician.

**7. Marketing authorization holder**

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**8. Marketing authorization number(s)**

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**9. Date of first authorization/renewal of the authorization**

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**10. Date of revision of the text**

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