

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE MEDICINAL PRODUCT

Motitec Tablet (Zinc sulfate (as monohydrate) 20 mg)

dispersible tabletsOmnizinc

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each dispersible tablet contains 54.9 mg zinc sulfate monohydrate equivalent to 20 mg of zinc.

Each dispersible tablet also contains 46.43 mg of aspartame and 4.5 mg vanilla flavour (contains 3.42 mg glucose).

For the full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Dispersible tablets.

### 4. CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

Zinc sulfate is indicated for the treatment of acute and persistent diarrhoea in infants and children aged up to 5 years.

#### 4.2 Posology and methos of administration

Children aged less than 6 months: 10 mg (½ tablet) once daily for 10–14 days. Children aged 6 months–5 years: 20 mg (1 tablet) once daily for 10–14 days.

It is recommended that doses are given between meals and the dose repeated if the child vomits within 30 minutes.

For missed doses, the missing dose can be taken as soon as possible, unless the next dose is due within 6 hours.

#### Method of administration

The tablet (or half-tablet) should be dispersed completely in 1 teaspoon (5 mL) clean water or breast milk and the entire amount administered orally.

#### 4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients

listed in section 6.1. Copper deficiency (see section 4.5).

#### 4.4 Special warnings and precautions for use

Accumulation of zinc may occur in cases of renal failure.

### *Excipients*

This medicine contains aspartame is a source of phenylalanine. It may be harmful if the patient has phenylketonuria (PKU), a rare genetic disorder in which phenylalanine builds up because the body cannot remove it properly.

Neither non-clinical nor clinical data are available to assess aspartame use in infants below 12 weeks of age. It is important to consider the contribution of excipients from all the medicines that the patient is taking.

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

### *Antibacterials:*

When taken together, zinc may reduce the absorption of tetracyclines (but not doxycycline) and quinolone antibacterials. In addition, zinc may also interfere with the absorption of cephalexin or ceftibuten. An interval of at least 3 hours should be allowed between administration of zinc and any of these medicines.

Medicines that reduce the absorption of zinc such as pencillamine should not be taken together with Zinc sulfate. An interval of at least 3 hours should be allowed between administration of zinc and medicines such as penicillamine.

### *Copper:*

Zinc may inhibit the absorption of copper (see section 4.3).

### *Calcium salts:*

The absorption of zinc may be reduced by calcium salts.

### *Iron:*

The absorption of zinc may be reduced by oral iron, also the absorption of oral iron may be reduced by zinc.

### *Trientine:*

The absorption of zinc may be reduced by trientine, also the absorption of trientine may be reduced by zinc.

## **4.6 Fertility, pregnancy and breastfeeding**

### *Pregnancy*

This medicine is not intended for adults.

There are limited data on the use of zinc sulfate in pregnant women.

Animal studies do not indicate reproductive toxicity at the human therapeutic dose (see section 5.3).

### *Breastfeeding*

Zinc is present in breast milk.

### *Fertility*

No data on the effect of zinc on fertility are available.

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

Zinc sulfate is not expected to have any effect on the ability to drive and use machines.

## **4.8 Undesirable effects**

### *Gastrointestinal disorders*

In clinical trials in children, administration of zinc tablets was associated with vomiting or regurgitation. In one study, vomiting attributed to the tablet was reported in 14% and regurgitation in 5.2% of the children. In most cases, vomiting or regurgitation occurred within 10 minutes of the first dose and was not recurrent.

#### *Copper malabsorption*

Zinc may interfere with the absorption of copper, leading to reduced copper levels, and potentially copper deficiency. The risk of copper deficiency may be greater with long-term treatment and/or with higher doses of zinc.

The adverse reactions considered related to zinc sulfate are listed below by body system, organ class and absolute frequency. Frequencies are defined as very common ( $\geq 1/10$ ), common (1/100 to 1/10), uncommon (1/1000 to 1/100), rare (1/10 000 to 1/1000), and very rare ( $< 1/10\ 000$ ).

#### **Gastrointestinal disorders**

Very common vomiting

Common regurgitation

Frequency not known abdominal pain, dyspepsia, nausea, gastric irritation and gastritis

#### **Nervous system disorders**

Frequency not known headache

#### **General disorders**

Frequency not known irritability, lethargy

#### ***Reporting of suspected adverse reactions***

Reporting suspected adverse reactions after authorisation 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 e-PV desktop applications ([https://drive.google.com/file/d/16hwTz0587ZWtSWadbBAMwQPOD\\_KSExZP/view](https://drive.google.com/file/d/16hwTz0587ZWtSWadbBAMwQPOD_KSExZP/view)) or search for e-PV Mobile applications on the Google Play or Apple App Store.

### **4.9 Overdose**

#### *Symptoms*

High doses of zinc cause emesis. In addition, zinc sulfate is corrosive at high doses, and may cause irritation and corrosion of the gastrointestinal tract, including ulceration of the stomach and possible perforation. Overdose with zinc has also been associated with acute renal tubular necrosis and interstitial nephritis. Prolonged high-dose zinc supplementation may result in copper deficiency.

#### *Treatment*

For acute zinc overdose, treatment is primarily supportive, but giving milk or alkali carbonates and activated charcoal may be useful in cases of substantial ingestions of zinc tablets. Chelating agents such as sodium calcium edetate may be useful.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacological classification: 24.4.1 Single minerals

Zinc is an essential trace element which is present in a wide range of foods. It is found in all tissues. Zinc sulfate is used for the treatment of acute and persistent diarrhoea in children.

Normal growth and tissue repair depend on adequate zinc levels. Zinc is an integral part of several enzymes important for protein and carbohydrate metabolism. Severe zinc deficiency is associated with growth retardation, primary hypogonadism, skin disease, disturbances of taste and smell, and impaired immunity, with increased susceptibility to infection.

Zinc supplementation has been shown to reduce the duration and severity of diarrhoea in populations of children with a high incidence of zinc deficiency, and also to reduce the frequency of recurrence in the subsequent 2–3 months. The benefits of zinc are possibly associated with reconstitution of the immune response. Direct inhibitory effects of zinc on enteric pathogens have also been reported.

## 5.2 Pharmacokinetic properties

### *Pharmacokinetics of zinc sulfate*

<b>Absorption</b>	
Oral bioavailability	10-40%
Food effect	Numerous dietary components can interfere with zinc absorption, particularly phytates and fibre, which bind to zinc, resulting in poorly absorbed zinc complexes.
<b>Distribution</b>	
Volume of distribution (mean)	NA*
Plasma protein binding	80% of serum zinc bound to albumin and the remainder to alpha2-macroglobulin and amino acids.
Tissue distribution	Zinc is distributed throughout the body. 85% of total body zinc is found in skeletal muscle and bone. The highest concentrations occur in hair, eyes, male reproductive organs and bone. Lower levels are present in liver, kidney and muscle. In blood, zinc is mainly localized within erythrocytes.
<b>Metabolism</b>	
	Not applicable
<b>Elimination</b>	
General note	Primarily excreted via the gastrointestinal tract and eliminated in the faeces. A smaller amount of zinc is excreted via the kidneys in the urine.
Elimination half life	NA*
Mean systemic clearance (Cl/F)	NA*
% of dose excreted in urine	NA*
% of dose excreted in faeces	NA*

\*Information not available

## 5.3 Preclinical safety data

Non-clinical data have not revealed significant hazards for humans, based on standard studies of safety pharmacology, repeated-dose toxicity, genotoxicity, carcinogenic potential and reproductive toxicity. Effects in non-clinical studies were observed only at exposures sufficiently in excess of the maximum human exposure to be of little clinical relevance.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Microcrystalline cellulose  
Maize starch  
Aspartame  
Colloidal silicon dioxide

### **6.1 Incompatibilities**

Not applicable.

### **6.2 Shelf life**

36 months

### **6.4 Special precautions for storage**

Store below 30°C. Protect from moisture and light. Store tablets in blisters in the provided carton. Keep away from reach of children.

### **6.5 Nature and contents of container**

1 x 10 tablets in PVC/PVC -aluminium blister.

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

No special precautions for disposal.

## **7. APPLICANT/MANUFACTURER**

Fidson Healthcare Plc,  
Km. 38, Lagos-Abeokuta Expressway,  
Sango Ota, Ogun State  
+234 807 700 8888  
www.fidson.com  
customercare@fidson.com