

## 1. NAME OF THE DRUG PRODUCT

### EXATIL-500(CEFUROXIME AXETIL TABLETS USP 500 MG)

#### Composition

Each film coated tablet contains

Cefuroxime Axetil USP  
eq. to Cefuroxime 500 mg  
Excipients q.s.  
Colour: Titanium Dioxide BP

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

| Ingredients                               | Qty./ TAB<br>In mg | Use/Function                     |
|-------------------------------------------|--------------------|----------------------------------|
| <b>Active Ingredient</b>                  |                    |                                  |
| * Cefuroxime Axetil USP eq. to Cefuroxime | 620 mg<br>500mg    | Active material                  |
| <b>In Active Ingredients</b>              |                    |                                  |
| Croscarmellose sodium BP                  | 56 mg              | Disintegrant                     |
| Microcrystalline Cellulose BP             | 158 mg             | Diluent/ Disintegrant            |
| Sodium Benzoate BP                        | 1 mg               | Preservative                     |
| Indion 234 IHS                            | 50 mg              | Disintegrant/taste masking agent |
| Magnesium stearate BP                     | 5 mg               | Lubricant                        |
| Talcum BP                                 | 10 mg              | Glidant                          |
| Aerosil (Colloidal Anhydrous Silica) BP   | 30 mg              | Glidant / Lubricant              |
| Light liquid paraffin BP                  | 0.9 mg             | Lubricant                        |
| Isopropyl alcohol BP                      | 0.189              | Solvent                          |
| Methylene Chloride BP                     | 0.284              | Solvent                          |
| EL-MB-1004 (F/C MOISTURE PROTEIH)         | 27.90              | Coating agent                    |

\* Quantity to be changed based on potency of API.

USP = United States Pharmacopeia

BP = British Pharmacopoeia

IHS= In-house Specification

## 3 PHARMACEUTICAL FORMS:

Oral tablets

## 4 CLINICAL PARTICULARS:

### 4.1 INDICATIONS FOR USE:

EXATIL-500 is indicated for the treatment of infections caused by susceptible strains of the following organisms in the following infections:

- Pharyngitis and tonsillitis caused by *Streptococcus pyogenes*.
- Otitis media caused by *Streptococcus pneumoniae*, *Haemophilus influenzae* (ampicillin- sensitive and resistant strains), *Moraxella* (*Branhamella*) *catarrhalis* and *Streptococcus pyogenes*.
- Sinusitis caused by *Streptococcus pneumoniae* and *Haemophilus influenzae*.

- Acute and chronic bronchitis caused by *Streptococcus pneumoniae*, *Haemophilus influenzae* (ampicillin-sensitive strains) and *Haemophilus parainfluenzae* (ampicillin-sensitive strains).
- Acute uncomplicated cystitis caused by *Escherichia coli* and *Klebsiella pneumoniae*.
- Lyme disease caused by *Borrelia burgdorferi*.

## 4.2 Posology/Dosage and method of administration

EXATIL-500 should be taken half an hour after food for optimum absorption.

| Infection                                                    | Dosage                                                  |
|--------------------------------------------------------------|---------------------------------------------------------|
| <b>Adults and Adolescents (13 years and older)</b>           |                                                         |
| Acute tonsillitis and pharyngitis, acute bacterial sinusitis | 250 mg twice daily                                      |
| Acute otitis media                                           | 500 mg twice daily                                      |
| Acute exacerbations of chronic bronchitis                    | 500 mg twice daily                                      |
| Cystitis                                                     | 250 mg twice daily                                      |
| Uncomplicated skin and soft tissue infections                | 250 mg twice daily                                      |
| Lyme disease                                                 | 500 mg twice daily for 14 days (range of 10 to 21 days) |
| <b>Pediatric Patients younger than 13 years</b>              |                                                         |
| Acute bacterial otitis media                                 | 250 mg every 12 hours                                   |
| Acute bacterial maxillary sinusitis                          | 250 mg every 12 hours                                   |

Or as directed by physician.

### Method of administration

For oral administration

## 4.3 CONTRAINDICATIONS:

Hypersensitivity to cephalosporin antibiotics or to any components of the formulation.  
Hypersensitivity to penicillin and other beta-lactam antibiotics.

## 4.4 Special warnings and precautions for use

EXATIL-500 should be used with caution in patients with;  
History of gastrointestinal disease, especially ulcerative colitis, regional enteritis or pseudomembranous colitis.

Renal function impairment - A reduced dose may be required.

## 4.5 Interaction with other drug products and other forms of interaction

### **Oral Contraceptives**

Cefuroxime axetil may affect the gut flora, leading to lower estrogen reabsorption and reduced efficacy of combined oral estrogen/progesterone contraceptives. Counsel patients to consider alternate supplementary (non-hormonal) contraceptive measures during treatment.

### **Drugs That Reduce Gastric Acidity**

Drugs that reduce gastric acidity may result in a lower bioavailability of CEFTIN compared with administration in the fasting state. Administration of drugs that reduce gastric acidity

may negate the food effect of increased absorption of CEFTIN when administered in the postprandial state. Administer CEFTIN at least 1 hour before or 2 hours after administration of short-acting antacids. Histamine-2 (H2) antagonists and proton pump inhibitors should be avoided.

#### **Probenecid**

Concomitant administration of probenecid with cefuroxime axetil tablets increases serum concentrations of cefuroxime

Coadministration of probenecid with cefuroxime axetil is not recommended.

#### **Drug/Laboratory Test Interactions**

A false-positive reaction for glucose in the urine may occur with copper reduction tests (e.g., Benedict's or Fehling's solution), but not with enzyme-based tests for glycosuria. As a false-negative result may occur in the ferricyanide test, it is recommended that either the glucose oxidase or hexokinase method be used to determine blood/plasma glucose levels in patients receiving cefuroxime axetil. The presence of cefuroxime does not interfere with the assay of serum and urine creatinine by the alkaline picrate method.

#### **4.6 Fertility, pregnancy and lactation**

##### **PREGNANCY:**

Pregnancy Category B. Reproduction studies have been performed in mice at doses up to 3,200 mg/kg/day (14 times the recommended maximum human dose based on mg/m<sup>2</sup>) and in rats at doses up to 1,000 mg/kg/day (9 times the recommended maximum human dose based on mg/m<sup>2</sup>) and have revealed no evidence of impaired fertility or harm to the fetus due to Cefuroxime Axetil.

There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

##### **LACTATION:**

Because cefuroxime is excreted in human milk, consideration should be given to discontinuing nursing temporarily during treatment with Cefuroxime Axetil.

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

Fluconazole has no or negligible influence on the ability to drive and use machines. However, when driving vehicles or operating machines it should be taken into account that occasionally dizziness or seizures may occur.

#### **4.8 Undesirable effects**

Common side effects: Diarrhea, dizziness, headache, drowsiness, itching/swelling

Rash, nausea, vomiting, abdominal pain, stomach upset, gas, headache, itching or rash

#### **4.9 Overdose**

Seizures have been reported.

Treatment is symptomatic and supportive. Serum levels of EXATIL-500 can be reduced by hemodialysis or peritoneal dialysis.

## 5. PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamics properties

Pharmacotherapeutic group: Antimycotics for systemic use, triazole derivatives  
ATC Code: J02AC01

Cefuroxime is a  $\beta$ -lactam type antibiotic. More specifically, it is a second-generation cephalosporin. Cephalosporins work the same way as penicillins: they interfere with the peptidoglycan synthesis of the bacterial wall by inhibiting the final transpeptidation needed for the cross-links. This effect is bactericidal. Cefuroxime is effective against the following organisms: Aerobic Gram-positive Microorganisms: *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*. Aerobic Gram-negative Microorganisms: *Escherichia coli*, *Haemophilus influenzae* (including beta-lactamase-producing strains), *Haemophilus parainfluenzae*, *Klebsiella pneumoniae*, *Moraxella catarrhalis* (including beta-lactamase-producing strains), *Neisseria gonorrhoeae* (including beta-lactamase-producing strains). Spirochetes: *Borrelia burgdorferi*. Cefuroxime axetil is the prodrug.

### 5.2 Pharmacokinetic properties

#### **Absorption:**

Cefuroxime axetil is an oral prodrug of cefuroxime. After oral absorption, cefuroxime axetil is hydrolysed in the intestinal mucosa and blood to release cefuroxime into the plasma. Oral absorption is optimal when administered with food. Peak serum levels of cefuroxime occur approximately 2 to 3 hours after oral dosing, when taken with food.

#### **Distribution:**

Protein binding is approximately 33% to 50%.

#### **Metabolism & Excretion:**

Cefuroxime is not metabolised and is excreted unchanged in the urine by glomerular filtration and tubular secretion. The elimination half-life is between 1 and 1,5 hours after oral dosing. The elimination half-life is prolonged with renal impairment. Serum levels of cefuroxime are reduced by dialysis.

### 5.3 Preclinical safety data

Preclinical data from conventional studies on repeat-dose/general toxicity, genotoxicity or carcinogenicity indicate no special hazard for humans not already considered in other sections of the SPC.

In reproduction toxicity studies in rat an increased incidence of hydronephrosis and extension of renal pelvis was reported and embryonal lethality was increased. An increase in anatomical variations and delayed ossification was noted as well as prolonged delivery and dystocia. In reproduction toxicity studies in rabbits abortions were recorded.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

|                                          |                    |
|------------------------------------------|--------------------|
| Cross camellose sodium BP                | Disintegrant       |
| MCCP (Microcrystalline Cellulose Powder) | Diluent/           |
| Sodium Benzoate BP                       | Preservative       |
| Indolin 234 IHS                          | Disintegrant/taste |
| Magnesium stearate BP                    | Lubricant          |
| Talcum BP                                | Glidant            |
| Aerosil( Colloidal Anhydrous Silica) BP  | Glidant /          |
| Light liquid paraffin BP                 | Lubricant          |
| Isopropyl alcohol BP                     | Solvent            |
| Methylene Chloride BP                    | Solvent            |

### 6.2 Incompatibilities

None

### 6.3 Shelf life

36 months

### 6.4 Special precautions for storage

Keep in a cool, dry place, below 30° C. Protect from light.  
KEEP OUT OF REACH OF CHILDREN.

### 6.5 Nature and contents of container

1 x 10 Tablets in Alu-Alu pack, in a mono-carton.

### 6.6 Special precautions for disposal and other handling

KEEP OUT OF THE REACH AND SIGHT OF CHILDREN

## 7. APPLICANT/MANUFACTURER

### Applicant:

**EXAGON PHARMACEUTICALS LTD.,**  
SUITE NO. 502, MKK PLAZA, ODUMEGWU, OJUKWU STREET,  
OFF ABDUSALAM ABUBAKAR WAY GUDU DIST. FCT ABUJA, NIGERIA

### Exported by:

**ROENTGEN IMPEX**  
NO. 2063/A, RABARI VAS, KHORAJ VILLAGE,  
DIST. GANDHINAGAR-382735, GUJARAT, INDIA

### Manufactured by:

**M/s. HEALTH CARE FORMULATIONS PVT. LTD,**  
Survey No. C/8, SARDAR ESTATE, AJWA Road, CITY: VADODARA-390019,  
GUJARAT STATE, INDIA