Summary of products characteristics (SmPC):

1. Name of the Medicinal Product: CLOXAREN ORAL SUSPENSION

2. Qualitative and Quantitative composition:
Each 5ml of reconstituted suspension contains Cloxacillin Sodium equivalent to Cloxacillin 125mg. For the full list of excipients, See section 6.1

3.Pharmaceutical form: Dry Powder for Oral Suspension
A light yellow coloured crystalline powder forms a yellowish coloured, viscous suspension with characteristic strawberry flavour.

4. Clinical particular's:
4.1 Therapeutic indication:
Cloxacillin is indicated in the treatment of a variety of infections due to susceptible organisms, including Respiratory tract Infections, Urinary tract Infections, Gonorrhoea, Enteric Infections, Meningitis, Septicemia, Otitis media, Biliary tract infections, and Infective, Endocarditis. It may be used for the prophylaxis of staphylococcal infections during major surgical procedures, particulary in cardio thoracic and orthopedic surgery.

4.2 Posology and method of administration:
The doses of Cloxaren will depend on the severity of the disease, and the age of the patient. The usual dose of Cloxaren is as follows:
The doses should be given 1 hour before or 2 hours after meals.
Adults: 250 to 500mg of Cloxaren every 6 hourly.
Children: 50 to 100mg/kg of body weight per day in divided doses.
The dose may be doubled in severe infections and may be given with other antibiotics, especially Ampicillin, to produce a wider spectrum of activity.

Method of Administration: Oral route.

4.3 Contraindication:
Cloxacillin should not be given to patients with a history of penicillin allergy or administered to neonates born of mothers hypersensitive to penicillin. Patients are allergic to cephalosporins may also be allergic to penicillins. Cloxacillin is incompatible with aminoglycosides, tetracyclines, erythromycin and polymyxin B.

4.4 Special warning and precaution for use:
Use with caution in patients with a known history of allergy to penicillins. When administered to a patient with penicillin sensitivity anaphylactic shock may occur.

Adrenaline, corticosteroids and antihistamines should be used to treat anaphylaxis. Due to the variability in intestinal absorption, oral administration is not a suitable substitute for the parenteral treatment of serious infections.

4.5 Interactions with other medicinal products and other forms of interactions:
Some medications may decrease the effectiveness of Cloxacillin. Make sure you inform your doctor, if you are on:

- Cholestyramine/colestopol
- Erythromycin, tetracycline, microcycline, doxycycline
- Birth control pills as Cloxacillin may decrease the effectiveness of these drugs
- Methotrexate, as Cloxacillin may increase the effects of this drug, thus requiring a dose adjustment
- Allopurinol, as Cloxacillin may increase the side effects of this drug leading to a skin rash
- Probenecid, as this drug increases the effects of Cloxacillin, thus requiring a dose adjustment.

Other drugs and supplements may also interact with Cloxacillin. Thus, discuss all the drugs you are taking with your doctor.

Additional information on special populations:
Not Applicable

Pediatric population:
Neonates: May have decreased renal clearance of cloxacillin; frequent evaluation of serum levels and of clinical status for adverse effects as well as frequent dosage adjustments may be necessary in this patient population.

4.6 Fertility, pregnancy and lactation:
The drug belongs to Pregnancy Category B. This means the drug is safe to use in pregnancy. However, never take the drug without discussing with your doctor, when you are pregnant.
There are no reports or studies that prove Cloxacillin passes through breast milk. Thus, discuss with your doctor before taking the drug, if you are breast-feeding a baby.

4.7 Effects on ability to drive and use machines:
Not Applicable

4.8 Undesirable effects:
As with other penicillins, adverse reactions will mainly be due to penicillin hypersensitivity. These include Urticaria, fever, joint pains, Angloedema, and anaphylactic shock in hypersensitive patients.
Gastro-intestinal effects like diarrhoea, nausea and heartburn may occur. A sore mouth or tongue or a black, hairy tongue due to superinfection with Candida may occur, Pseudomembranous colitis

may occur. Bone marrow depression, granulocytopenia, prolongation of bleeding time and defective platelet function may occur in patients receiving large doses.

4.9 Overdose and Treatment:
Overdose may cause neuromuscular irritability or seizures. No specific recommendation is available. Treatment is symptomatic. After recent ingestion (within 4 hours), empty the stomach by induced emesis or gastric lavage; follow with activated charcoal to reduce absorption. Cloxacillin isn't appreciably removed by hemodialysis or peritoneal dialysis.

5. Pharmacological Properties:
Pharmacotherapeutic group: Penicillin antibacterial
ATC Code: J01CF02

5.1 Pharmacodynamic properties:
Cloxacillin is bactericidal; it adheres to bacterial penicillin-binding proteins, thereby inhibiting bacterial cell wall synthesis. Cloxacillin resists the effects of penicillinases-enzymes that inactivate penicillin-and therefore is active against many strains of penicillinase-producing bacteria; this activity is most pronounced against penicillinase-producing staphylococci; some strains may remain resistant. Cloxacillin is also active against gram-positive aerobic and anaerobic bacilli but has no significant effect on gram-negative bacilli.

5.2 Pharmacokinetic properties:
Cloxacillin is incompletely absorbed from the gastro-intestinal tract after oral administration, the absorption is further reduced by the presence of food in the stomach. After an oral dose of 500mg, a peak plasma concentration of 7 to 14μ/ml is obtained in fasting subjects in 1 to 2 hours. About 94% of Cloxacillin in the circulation is bound to the plasma proteins. Cloxacillin has been reported to have a plasma half-life of approximately 0.5 hours in healthy subjects. The half-life is prolonged in neonates. Cloxacillin diffuses across the placenta into the foetal circulation and is excreted in breast milk. Cloxacillin is metabolized to a limited extend, and the unchanged drug and metabolites are excreted in the urine by glomerular filtration and renal tubular secretion.

5.3 Preclinical safety data:
Preclinical data indicate no special risk for humans based on conventional studies of safety pharmacology, repeat dose toxicity, genotoxicity, carcinogenic potential or toxicity to reproduction

6. Pharmaceutical Particulars:

6.1 List of excipients

Cloxaren Oral Suspension contains the following excipients:
Pharma grade sugar, Sodium carboxymethylcellulose, colloidal silicon dioxide, Sodium citrate, Citric acid anhydrous, sodium methyl paraben, sodium propyl paraben, color tartrazine yellow, dry powder flavour of strawberry, ethyl cellulose and isopropyl alcohol

6.2 Incompatibilities

None known

6.3 Shelf life

24 months

6.4 Special precaution for storage

Do not store above 30°C. Protect from light. Keep out of reach of children.

6.5 Nature and contents of container

White coloured HDPE Bottle containing 25g light yellowish powder for 100ml oral suspension with polypropylene screw closure and sealing membrane and contained in unit box with literature.

6.6 Special precautions for disposal

No special precaution.

7. MARKETING AUTHORISATION HOLDER AND MANUFACTURING SITE ADDRESSES:

Marketing Authorization Holder:
Rene Industries Ltd
Address: PO Box 6034, Plot No.680, Kamuli, Kireka, Kampala, Uganda.

Manufactured by:
Rene Industries Ltd
Address: PO Box 6034, Plot No.680, Kamuli, Kireka, Kampala, Uganda.

8. MARKETING AUTHORISATION NUMBER:

Not Applicable

9. DATE OF FIRST REGISTRATION/RENEWAL OF THE REGISTRATION:

Not Applicable

10. DATE OF REVISION OF THE TEXT:

Not Applicable

11. DOSIMETRY (IF APPLICABLE):
Not Applicable

12. INSTRUCTIONS FOR PREPARATION OF RADIOPHARMACEUTICALS (IF APPLICABLE):
Not Applicable