SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of the Medicinal Product

1.1 Product name

CILACAR-5
Cilnidipine Tablets 5 mg

1.2 Strength

Each Film Coated Tablet Contains:
Cilnidipine.....5 mg
Excipients… .....q.s

1.3 Pharmaceutical Dosage Form

Tablets

2. Quality and Quantitative Composition

2.1 Qualitative Declaration

The active substance should be declared by it recommended INN, accompanied by its salt or hydrate form if relevant

Cilnidipine

Chemical name (s):
1, 4-Dihydro-2,6-dimethyl-4-(3-nitro phenyl)-3,5-pyridinedicarboxylic acid 2-methoxyethyl (2E)-3-phenyl-2-propenyl ester.

2.2 Quantitative Declaration

The active substance must be expressed per dosage unit (for metered dose inhalation

Ingredients
Cilnidipine
Avicel Ph-102 (Microcrystalline Cellulose) B.P
Lactose USP- NF (Pharmatose DCL 15)
Lubrication
Magnesium Stearate BP
Sodium Starch Glycolate BP
Core Tablet Weight
Film Coating
Opadry White II 85F 28751
Purified Water BP @
Film Coated Tablet Weight

3. Pharmaceutical Form: Product Description or Appearance

White to off white colored round biconvex film coated tablets.

4. Clinical particulars

4.1 Therapeutic indications

Cilnidipine is used for treatment of hypertension.

4.2 Posology and method of administration

The usual adult dose is 5 to 20 milligrams daily orally for the treatment of hypertension.

Refer Pack Insert.

Recommended route of administration:

Oral

4.3	**Contraindications** • Aortic stenosis, advanced. • Hypersensitivity to cilnidipine or other calcium channel antagonists.
4.4	**Special warning and precautions for use** • Angina • Chronic renal insufficiency • Congestive heart failure • Hypotension • Liver dysfunction or elevated liver enzymes • Peripheral edema (confounding physical findings in congestive failure) • Pregnancy – There are no human clinical or animal data concerning the safety of Cilnidipine during pregnancy & therefore use during pregnancy should be avoided.
4.5	**Interaction with other medicinal products and other forms of interactions** There are no adverse drug interactions reported with Cilnidipine.
4.6	**Pregnancy and lactation** There are no human clinical or animal data concerning the safety of Cilnidipine during Pregnancy and therefore administration of Cilnidipine during pregnancy should be avoided.
4.7	**Effects on ability to drive and use machine** There are no reported effects of the drug on the ability to drive or handle machinery.
4.8	**Undesirable effects** Dizziness, headache, peripheral edema, flushing, rash and gingival hyperplasia are the most common adverse events seen with the dihydropyridine derivative calcium channel antagonists. Headache, flushing was reported in 3.7 & 4.5 % of 764 subjects receiving Cilnidipine respectively.

5.	**Pharmacological Properties**
5.1	**Pharmacodyanamic Properties** **Mechanism of Action:** 1. Cilnidipine is a third-generation dihydropyridine calcium antagonist with a slow onset and long duration of action. Calcium antagonists inhibit influx of extracellular calcium ions into the cells, resulting in decreased vascular smooth muscle tone and vasodilation, leading to a reduction in blood pressure. The dihydropyridine derivatives (cilnidipine, amlodipine, nisoldipine, nifedipine, felodipine, nitrendipine, nimodipine) differ from the benzothiazepine (eg, diltiazem) and phenylalkylamine (eg, verapamil) classes of calcium antagonists with regard to potency, tissue selectivity, and antiarrhythmic effects. In general, dihydropyridine agents are the most potent arteriolar vasodilators, producing the least negative inotropic and electrophysiologic effects; in contrast, verapamil and diltiazem slow atrioventricular (AV) conduction and exhibit negative inotropic activity while also maintaining some degree of arteriolar vasodilatation (Katz & Leach, 1987). 2. In vitro and animal studies suggest that cilnidipine blocks both the L- and N- type calcium channels. Cilnidipine inhibits the pressor response to cold stress by suppressing sympathetic nerve activity in spontaneously hypertensive rats. It does not induce tachycardia caused by hypotensive baroreflexes. In vitro, cilnidipine inhibits norepinephrine release in electrically stimulated rabbit mesenteric arteries (Saruta, 1998). 3. In human studies, cilnidipine had weak inotropic effects and suppressed cardiac sympathetic over activity. Therefore, it may decrease the risk and mortality from longterm cardiovascular complications (Sakata et al, 1999). Once-daily cilnidipine was associated with less reflex tachycardia and had fewer effects on the autonomic nervous system than sustained-release nifedipine in hypertensive patients (Minami et al, 1998a; Minami et al, 2000). In contrast to other long-acting calcium channel blockers, cilnidipine and amlodipine did not increase plasma renin activity, thus they may decrease the risk of cardiovascular complications due to metabolic imbalances (Sakata et al, 1999). Cilnidipine may inhibit norepinephrine and dopamine production, thereby improving insulin resistance in patients with diabetes (Takeda et al, 1999). It also had beneficial effects on lipid profiles in hypertensive patients by decreasing total cholesterol, triglyceride, and very low density lipoprotein cholesterol levels, and increasing high density lipoprotein cholesterol and the ratio of high density lipoprotein cholesterol to total cholesterol (Ahaneku et al, 2000).

5.2	**Pharmacokinetic Properties** Cilnidipine has a half-life of 2.1-2.5 h after administration of 5-20mg. It has however long duration of action of 24 hours enabling once a day administration This is partly explained by its high lipophilicity that compensates for its short half-life.(*17) Cilnidipine therefore demonstrates favorable pharmacokinetics to elicit significant reduction in physiological morning rise in blood pressure. Cilnidipine's specific effect on N-type (related to SNS activity) results in better reduction of morning rise in blood pressure.
5.3	**Preclinical Safety Data** Refer medical data
6.	**Pharmaceutical Particulars**
6.1	**List of excipients** Avicel Ph-102 (Microcrystalline Cellulose) BP, Lactose USP- NF (Pharmatose DCL 15), Magnesium Stearate BP, Sodium Starch Glycolate BP, Opadry White II 85F 28751
6.2	**Incompatibilities** Not applicable
6.3	**Shelf life** 3 years
6.4	**Special Precautions for storage** Store below 30°C. Protect from light. Keep out of reach of children.
6.5	**Nature and contents of containers** 1. Alu-Alu Blister of 10's. 3 such blisters are packed in a carton along with pack insert. 2. Alu-Alu Blister of 10's. 10 such blisters are packed in a carton along with pack insert.
7.	**Marketing Authorization Holder** **UNIQUE PHARMACEUTICAL LABORATORIES** (A Div. Of J. B. Chemicals & Pharmaceuticals Ltd.) Plot No. 215 - 219, GIDC Industrial Area , Panoli, 394 116, Gujarat State, India.

8.	**Marketing Authorization Numbers** 09394/07062/NMR/2018
9.	**Date of Authorization** Dec 31, 2023
10.	**Date of revision of the text** Not Applicable