1.6.1.1 Name of the medicinal Product

Amlodipine besylate tablets USP

1.6.1.1.1 Strength

10 mg/tablet

1.6.1.1.2 Pharmaceutical Form

Oral Tablet

1.6.1.2 Qualitative and Quantitative Composition

1.6.1.2.1 Qualitative declaration

Amlodipine besylate USP

1.6.1.2.2 Quantitative declaration

Sr. No.	Ingredients Chemical Name	Specification	Standard Quantity/ Tablet (mg)	Reason for Inclusion
01	Amlodipine Besylate Eq. to Amlodipine (A)	USP	4.244 Eq. To 3.05	Calcium Channel Antagonists
02	Microcrystalline Cellulose (PH 1 02) (C)	BP	22.684	Diluent
03	Sodium Starch Glycolate (TYPE-A)	BP	1.836	Disintegrant
04	Calcium Hydrogen Phosphate (Anhydrous)	BP	12.852	Diluent
05	Magnesium Stearate	BP	0.612	Lubricant
06	Color Quinoline yellow lake	IHS	0.612	Coloring agent

1.6.1.3 Pharmaceutical Form

Oral Tablet

Yellow colored, round shaped, biconvex, uncoated tablets, breakline on one side and plain on other side.

1.6.1.4 Clinical Particulars

1.6.1.4.1 Therapeutic Indications:

Amlodipine Besylate Tablets USP is indicated for hypertension, chronic stable angina and vasospastic angina (Prinzmetal's or variant angina). Amlodipine Besylate Tablets USP may be used as monotherapy or in combination with other antihypertensive or antianginal drugs.

1.6.1.4.2 Posology and Method of Administration

Hypertension :

Initial dose of 5 mg once daily, with a maximum dose of 10 mg once daily.

Small, fragile or elderly individuals or patients with hepatic insufficiency may be started on 2.5 mg once daily and this dose may be used when adding amlodipine to other antihypertensive therapy.

Chronic stable or vasospastic angina:

5-l 0 mg with a lower dose (2.5 mg) in the elderly and in patients with hepatic insufficiency.

Children:

The effective antihypertensive oral dose in pediatric patients (6-17 years) is 2.5 mg to 5 mg once daily.Doses in excess of 5 mg daily have not been studied in pediatric patients.

1.6.1.4.3 Contraindications

Hypersensitivity to amlodipine or any component of the formulation.

1.6.1.4.4 Special Warnings and Special Precautions for Use

Increased angina and/or Ml has occurred with initiation or dosage titration of calcium channel blockers. Use caution in severe aortic stenosis. Use caution in patients with severe hepatic impairment. Dosage titration should occur after 7- 14 days on a given dose.

Pregnancy Implications:

Embryotoxic effects have been demonstrated in small animals. No well-controlled studies have been conducted in pregnant women. Use in pregnancy only when clearly needed and when the benefits outweigh the potential hazard to the foetus.

Lactation:

Excretion in breast milk unknown/not recommended

1.6.1.4.5 Interaction with other medicinal products and other forms of interaction

In clinical trials, amlodipine has been safely administered with thiazide diuretics, betablockers, angiotensin converting enzyme inhibitors, long acting nitrates, sublingual nitroglycerin, digoxin, warfarin, non-steroidal anti-inflammatory drugs, antibiotics and oral hypoglycemic drugs.

1.6.1.4.6 Fertility, Pregnancy and Lactation

Pregnancy Implications:

Embryotoxic effects have been demonstrated in small animals. No well-controlled studies have been conducted in pregnant women. Use in pregnancy only when clearly needed and when the benefits outweigh the potential hazard to the foetus.

Lactation:

Excretion in breast milk unknown/not recommended

1.6.1.4.7 Effects on ability To Drive and use Machines

None.

1.6.1.4.8 Undesirable Effects

Amlodipine is well tolerated. Side effects include headache, oedema, fatigue, somnolence, nausea, abdominal pain, flushing, palpitations and dizziness.

Less commonly observed are pruritus, rash, dyspnoea, asthenia, muscle cramps and dyspepsia. Rarely, myocardial infarction and chest pain have been reported.

1.6.1.4.9 Overdose

Primary cardiac symptoms of calcium channel blocker overdose include hypotension and bradycardia. Noncardiac symptoms include confusion, stupor, nausea, vomiting, metabolic

acidosis, and hyperglycemia. Treat other signs and symptoms symptomaticallyTreatment is symptomatic and supportive.

1.6.1.5 Pharmacological Properties

1.6.1.5.1 Pharmacodynamics Properties

Inhibits calcium ion from entering the "slow channels" or select voltage-sensitive areas of vascular smooth muscle and myocardium during depolarization, producing a relaxation of coronary vascular smooth muscle and coronary vasodilation; increases myocardial oxygen delivery in patients with vasospastic angina.

1.6.1.5.2 Pharmacokinetic Properties

After oral administration of therapeutic doses of amlodipine, absorption produces peak plasma Concentrations between 6 and 12 hours. Absolute bioavailability has been estimated to be between 64 and 90%. The bioavailability of amlodipine is not altered by the presence of food. Amlodipine is extensively (about 90%) converted to inactive metabolites via hepatic metabolism with 10% of the parent compound and 60% of the metabolites excreted in the urine. Elimination from the plasma is biphasic with a terminal elimination half-life of about 30-50 hours. Steady- state plasma levels of amlodipine are reached after 7 to 8 days of consecutive daily dosing.

The pharmacokinetics of amlodipine are not significantly influenced by renal impairment Patients with renal failure may therefore receive the usual initial dose.

Elderly patients and patients with hepatic insufficiency have decreased clearance of amlodipine with a resulting increase in AUC of approximately 40-60%, and a lower initial dose may be required. A similar increase in AUC was observed in patients with moderate to severe heart failure.

Paediatric Patients Sixty-two hypertensive patients aged 6 to 17 years received doses of amlodipine between 1.25 mg and 20 mg. Weight-adjusted clearance and volume of distribution were similar to values in adults.

1.6.1.5.3 Preclinical Safety Data.

Not Applicable

1.6.1.6 Pharmaceutical Particulars

1.6.1.6.1 List of Excipients

Microcrystalline Cellulose (PH 102)

Sodium Starch Glycolate (Type-A)

Calcium Hydrogen Phosphate (Anhydrous)

Magnesium Stearate

Color Quinoline yellow lake

1.6.1.6.2 Incompatibilities

Not applicable.

1.6.1.6.3 Shelf Life

36 months

1.6.1.6.4 Special Precautions for Storage

Store below 30°C.

Protect from light.

1.6.1.6.5 Nature and Contents of Container

Yellow colour, round shaped, biconvex, uncoated tablet, breakline on one side and plain on other side. Such 10 Tablets are packed in a Alu-PVC blister pack. Such 10 blisters packed in printed carton with Packing Insert.

1.6.1.6.6 Special precaution for disposal and other handling

Any unused product or waste material should be disposed of in accordance with local requirements.

1.6.1.7 Marketing Authorization Holder And Manufacturing Site Addresses

1.6.1.7.1 Name and Address of Marketing Authorization Holder

Lincoln Pharmaceuticals Limited
Trimul Estate, Khatraj, Taluka: Kalol,
District: Gandhinagar Gujarat, India.
Phone: +91-79-41078096
Telefax: +91-79-41078062
Email: hiren@lincolnpharma.com
Website: www.lincolnpharma.com

1.6.1.7.2 Name and Address of manufacturing site(s)

Lincoln Pharmaceuticals Limited
Trimul Estate, Khatraj, Taluka: Kalol,
District: Gandhinagar Gujarat, India.
Phone: +91-79-41078096
Telefax: +91-79-41078062
Email: hiren@lincolnpharma.com
Website: www.lincolnpharma.com

1.6.1.8 Marketing Authorization Number

To be included after obtaining first registration.

1.6.1.9 Date of First <Registration> / Renewal of The <Registration>

It will be applicable after registration of this product.

1.6.1.10 Date of Revision of the Text

1.6.1.11 Dosimetry (If Applicable)

Not Applicable

1.6.1.12 Instructions for preparation of radiopharmaceuticals (if Applicable)

Not Applicable