

Summary of Product Characteristics (SmPC)

1. NAME OF THE MEDICINAL PRODUCT

HEPTOPEP FORTE SYRUP

2. QUALITATIVE AND QUANTITATIVE COMPOSITION:

Each 5ml Contains:

Cyproheptadine Hydrochloride	BP	2 mg
Lysine Hydrochloride	USP	150 mg
Thiamine Hydrochloride	BP	2 mg
Pyridoxine Hydrochloride	BP	1 mg
Nicotinamide	BP	15 mg
Dexpanthenol	BP	4.5 mg
Flavoured syrup base		q.s

S.No.	Raw Materials	Spec.	Unit Dose (mg/5 mL)	Overages (In %)	Unit Dose (mg/5 mL) With Overages	Category
1	Cyproheptadine Hydrochloride	BP	2.000	-	2.24*	Active
2	Lysine hydrochloride	USP	150.000	-	150.00	Active
3	Thiamine Hydrochloride	BP	2.000	60.00	3.200	Active
4	Pyridoxine Hydrochloride	BP	1.000	30.00	1.300	Active
5	Nicotinamide	BP	15.000	20.00	18.000	Active
6	Dexpanthenol	BP	4.500	25.00	5.625	Active
7	Cysteine Hydrochloride	USP	0.500	-	0.500	Antioxidant
8	Glycerol	BP	250.000	-	250.000	Co-solvent
9	Sorbitol solution 70 % (non - crystallizing)	BP	500.000	-	500.000	

S.No.	Raw Materials	Spec.	Unit Dose (mg/5 mL)	Overages (In %)	Unit Dose (mg/5 mL) With Overages	Category
10	Sucrose	BP	3000.000	-	3000.000	Syrup base
11	Benzoic acid	BP	2.500	-	2.500	Preservative
12	Bronopol	BP	0.505	-	0.505	
13	Disodium Edetate	BP	0.500	-	0.500	Chelating agent
14	Sodium citrate	BP	1.500	-	1.500	Buffering agent
15	Sunset Yellow Supra	IH	0.055	-	0.055	Colouring agent
16	Pine apple Singapore essence	IH	0.010 mL		0.010 mL	Flavouring agent
17	Sweet Orange flavour	IH	0.015 mL		0.015 mL	
18	Mixed fruit flavour	IH	0.010 mL		0.010 mL	
19	Purified water	BP	Qs to 5 mL		Qs to 5 mL	Vehicle

3. PHARMACUETICAL FORM

Syrup

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Heptopep Forte Syrup as a appetite stimulant for increased appetite and healthy growth, indicated in:

- Loss of appetite and poor eating habits.
- Loss of appetite during convalescence, following surgery or after any major illness.
- As an appetite stimulant particularly in anorexia nervosa.

4.2 Posology and method of administration

Adults : 10 ml 3 times daily before food.

Children: 2 to 6 years : 5 mL, 2 to 3 times daily before food.

7 to 14 years : 10 mL, 2 to 3 times daily before food.

4.3 Contraindications:

There are no known contraindication but concomitant administration of other antihistamines and sedatives is contraindicated.

4.4 Adverse effects and precautions for use

Drowsiness to deep sleep, lassitude dizziness, and in-coordination may occasionally occur especially in high doses. The sedative effect may diminish after a few days of treatment. It is suggested that the treatment is started with a lower dose and increased gradually over a period of days. Some individuals may feel drowsy when taking Heptopep Forte Syrup. If this happens they should not drive a vehicle or operate machinery or appliances requiring alertness.

4.5 Interactions with other medicinal products and other forms of interaction

Sedatives antihistamines may enhance the sedative effects of CNS depressant including alcohol, barbiturates, hypnotics.

4.6 Pregnancy and Lactation

Pregnancy

Reproduction studies have been performed in rabbits, mice and rats at oral or subcutaneous doses up to 32 times the maximum recommended human oral dose and have revealed no evidence of impaired fertility or harm to the fetus due to cyproheptadine. Cyproheptadine has been shown to be fetotoxic in rats when given by intraperitoneal injection in doses four times the maximum recommended human oral dose. Two studies in pregnant women, however, have not shown that cyproheptadine increases the risk of abnormalities when administered during the first, second and third trimesters of pregnancy. No teratogenic effect were observed in any of the newborns. Nevertheless because the studies in humans cannot rule out the possibility of harm, cyproheptadine should be used during pregnancy only if clearly needed.

Lactation: Contraindicated in breast-feeding women

4.7 Overdose

Over dosage reaction may vary from central nervous system depression to stimulation especially in children. Also, Atropine –like signs and symptoms (dry mouth; fixed dilated pupils; flushing) as well as gastrointestinal symptoms may occur.

4.8 Antidote

If vomiting has not occurred spontaneously, the patient should be induced to vomit with syrup of ipecac.

If the patient is unable to vomit, perform gastric lavage. Precaution against aspiration must be taken especially in infants and children. When life-threatening CNS signs and symptoms are present, intravenous physostigmine salicylate maybe considered dosage and frequency of administration are dependent on age, clinical response and recurrence after response.

Saline cathartics, as milk of magnesia, by osmosis draw water into the bowel and, therefore, are valuable for their action in rapid dilution of bowel content.

5.0 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Vitamins are organic substances required by the body in small amounts for various metabolic processes. Vitamin deficiency may result from an inadequate diet, perhaps due to increased requirements such as during pregnancy or may be induced by disease or drugs. This formulation is a combination providing adequate quantities of all Cyproheptadine, Lysine and Vitamins.

Cyproheptadine is a piperidine antihistamine. Unlike other antihistamines, this drug also antagonizes serotonin receptors. This action makes Cyproheptadine useful in conditions such as vascular headache and anorexia. Cyproheptadine does not prevent the release of histamine but rather competes with free histamine for binding at HA-receptor sites. Cyproheptadine competitively antagonizes the effects of histamine on HA-receptors in the GI tract, uterus, large blood vessels, and bronchial smooth muscle. Most antihistamines possess significant anticholinergic properties, but Cyproheptadine exerts only weak anticholinergic actions. Blockade of central muscarinic receptors appears to account for Cyproheptadine's antiemetic effects, although the exact mechanism is unknown. Cyproheptadine also competes with

serotonin at receptor sites in smooth muscle in the intestines and other locations. Antagonism of serotonin on the appetite center of the hypothalamus may account for Cyproheptadine's ability to stimulate appetite. Cyproheptadine also has been used to counter vascular headaches, which many believe are caused by changes in serotonin activity, however it is unclear how Cyproheptadine exerts a beneficial effect on this condition.

Adequate absorption of calcium; helps form collagen (which makes up bone cartilage & connective tissues); aids in the production of antibodies, hormones & enzymes. Recent studies have shown that Lysine may be effective against herpes by improving the balance of nutrients that reduce viral growth. A deficiency may result in tiredness, inability to concentrate, irritability, blood shot eyes, retarded growth, hair loss, anemia & reproductive problems.

Thiamine/Vitamin B₁ is a water-soluble vitamin. It is essential coenzyme for carbohydrate metabolism in the form of the diphosphate (thiamine pyrophosphate, cocarboxylase]. Thiamine pyrophosphate also acts as a co-enzyme in the direct oxidative pathway of glucose metabolism. In thiamine deficiency, pyruvic and lactic acids accumulate in the tissues. Thiamine deficiency leads to the development of “beri-beri”.

Pyridoxine/ VitaminB₆ is a water-soluble vitamin, involved in amino acid, carbohydrate and fat metabolism. It is also required for the formation of haemoglobin. It is also required for the normal antibody-mediated and cell-mediated immune responses. Its deficiency leads to the development of sideroblastic anaemia, dermatitis, cheilosis and neurological symptoms such as peripheral neuritis and convulsions.

Nicotinamide is a water-soluble vitamin B substance, which is converted to NAD and NADP in the body. These coenzymes are involved in the electron transfer reactions in the respiratory chain. Deficiency of Nicotinamide leads to the development of “pellagra and mental neurological changes”.

GI stimulant action: Dexpanthenol is an analogue of pantothenic acid, a precursor of coenzyme A, which serves as a cofactor in the synthesis of acetylcholine. Dexpanthenol stimulates the acetylation of choline to acetylcholine, which increases peristalsis.
Emollient action: By stimulating granulation and epithelialization, dexpanthenol promotes healing and relieves itching.

5.2 Pharmacokinetic properties

Cyproheptadine is well-absorbed following oral ingestion, with peak plasma levels occurring after 1 to 3 hours. Its terminal half-life when taken orally is approximately 8 hours. Lysine Hydrochloride absorbed from the lumen of the small intestine into the enterocytes by an active transport process

Thiamine is absorbed from the gastro-intestinal tract and is widely distributed to most body tissues. Amounts in excess of the body's requirements are not stored but excreted in the urine as unchanged thiamine or its metabolites.

Pyridoxine is absorbed from the gastro-intestinal tract and converted to the active pyridoxal phosphate which is bound to plasma proteins. It is excreted in the urine as 4-pyridoxic acid.

Nicotinamide is readily absorbed from the GI tract following oral administration and widely distributed in the body tissues.

Dexpanthenol is Absorbed from I.M. sites. After conversion to pantothenic acid, drug is distributed widely, mainly as coenzyme A. Levels are highest in liver, adrenal glands, heart, and kidneys. Most metabolites are excreted in urine; remainder in feces.

5.3 Preclinical safety data

Not applicable

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients:

Cysteine Hydrochloride, Glycerol, Sorbitol solution 70 %, Sucrose, Benzoic acid, Bronopol, Disodium Edetate, Sodium citrate, Sunset Yellow Supra, Pine apple Singapore essence, Sweet Orange flavour, Mixed fruit flavour, Purified water.

6.2 Incompatibilities

Not applicable

6.3 Shelf life

24 months

6.4 Special precautions for storage

Store below 30°C. Protect from light.

6.5 Nature and contents of container

Packing

200 mL in amber glass bottle with graduated measuring cup.

7. REGISTRANT

Indus Life sciences Pvt. Ltd.,

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8. MANUFACTURER

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9. DATE OF PUBLICATION OR REVISION

Not applicable