ROTAVIT KIDS (Pediatric syrup)

COMPOSITION

5 ml of syrup contains

- vitamin A (retinyl palmitate) 133 mcg
- vitamin B₁ (thiamine mononitrate) 0.5 mg
- vitamin B₂ (riboflavin-5-phosphate sodium) 0.8 mg
- vitamin B₅ (calcium D-pantothenate) 2 mg
- vitamin B₆ (pyridoxine hydrochloride) 0.5 mg
- vitamin B₉ (folic acid) 80 mcg
- vitamin B₁₂ (cyanocobalamin) 1 mcg
- vitamin C (ascorbic acid) 30 mg
- vitamin D₃ (cholecalciferol) 2.5 mcg
- vitamin E (tocopheryl acetate) 5 mg
- vitamin PP (nicotinamide) 6 mg
- iron (in iron lactate dihydrate form) 4 mg
- copper (in copper sulphate anhydrous form) 100 mcg
- zinc (in zinc citrate trihydrate form) 2.5 mg
- barley malt extract 0.5 g

PHARMACOLOGICAL PROPERTIES

PHARMACODYNAMICS

Rotavit Kids is a vitamin complex with mineral elements and herbal extracts. It is essential for normal function and vitality of the organism. It improves organism’s resistance against various diseases and negative external factors.

Vitamin A takes part in redox and protein synthesis regulation. It facilitates normal metabolism, normal functions of cellular and sub-cellular membranes. It is essential for production of new cells and it normalizes function of visual system.

Vitamin B₁ is a vital component of carbohydrate metabolism as a part of a coenzyme used for keto acids decarboxylation. It plays a valid role in carbohydrate, protein and lipid metabolism. It takes
part in transmission of nerve impulses in synapses. It increases psychological and physical ability to work; it has detoxicating effect by improving metabolism in nervous tissue.

*Vitamin B₂* is a vital catalyst in cellular respiration and visual perception. By regulating redox processes, riboflavin takes part in protein, lipid and carbohydrate metabolism; it plays significant part in DNA-formation and haemoglobin synthesis; it facilitates tissue regeneration (including skin cell regeneration) and correction of trophic disorders in cells.

*Vitamin B₅* is a component of coenzyme A (organic non-protein compound, crucial for ferment activity). It plays important role in acetylation and oxidation. It takes part in carbohydrate and lipid metabolism and acetylcholine synthesis.

*Vitamin B₆* increases psychological and physical ability to work, regulates blood glucose level, normalizes function of thyroid, adrenal glands and gonads. It improves metabolism in brain tissues and enhances nervous system; it takes part in neuromediators synthesis and has antidepressant properties.

*Vitamin B₉* is essential for regular growth, development and proliferation of tissues. It increases psychological and physical ability to work and stimulates production of hydrochloric acid in stomach.

*Vitamin B₁₂* has immunomodifying and antiallergic properties. It restores the structure of nervous tissue and increases appetite. Vitamin B₁₂ takes part in synthesis of various amino acids, has positive effect on liver function and nervous system; it activates blood coagulation and metabolism of carbohydrates and lipids.

*Vitamin C* has strong regenerative function; in particular, it regenerates ferments, which neutralize external toxins. It is essential for collagen synthesis (one of the structural components of vascular walls, tendons, ligaments and bones), transformation of cholesterol into bile acid, which help digest fats and enhance peristalsis.

*Vitamin D₃* enhances calcium absorption in small intestine by stimulating calcium-bonding protein synthesis. It increases calcium reabsorption in renal canals. Vitamin D₃ activates remodelling of bone tissue by increasing synthesis of type 1 collagen and matrix proteins via activation of osteoblasts synthesis. It influences the function of thyroid, parathyroid and glands by protecting skeletal calcification.

*Vitamin E* is an antioxidant. It protects cells against damage, prevents formation of free radicals; it stimulates muscular activity and function of glands. It takes part in the formation of extracellular matrix, connective tissue fibres, vascular smooth muscle and digestive system.

*Vitamin PP* is a component of ferments taking part in cellular respiration and protein metabolism, and in regulating higher nervous activity and digestive system functions.

*Iron* is a microelement stimulating erythropoiesis. It is one of the components of haemoglobin, myoglobin and various ferments. It reversibly binds oxygen and takes part in various redox processes. It has vital function in blood production. When iron is absorbed in the salts form the deficit is quickly corrected.
Copper facilitates anabolic processes, takes part in functioning of certain ferments (cytochrome oxidase, tyrosinase, and other), synthesis of skin, hair and eyes pigments and synthesis of haemoglobin. Copper affects functions of endocrine glands.

Zinc is a vital part of more than 80 ferments in human organism. It is necessary for the formation of erythrocytes and other formed blood elements. Zinc takes part in photochemical reactions of visual processes and in functions of endocrine glands.

*Barley malt extract* is a natural source of energy.

**PHARMACOKINETICS**

The effect of *Rotavit Kids* depends on collective function of its components. Therefore, it is impossible to conduct kinetic research as in combinations the components cannot be traced using markers or bio-research. As a result, it is impossible to trace metabolites of the medication.

**THERAPEUTIC INDICATIONS**

- prevention of hypovitaminosis and microelements deficit in children;
- improvement of organism’s resistance against infections and common cold;
- increased need of vitamins and microelements (malnutrition and unbalanced diet, decreased appetite, period after chemotherapy, asthenic disorders, increased physical and psychological stress, recovery period after illnesses).

**CONTRAINDICATIONS**

- hypersensitivity to any components of the medication;
- hypervitaminosis.

**ADVERSE EFFECTS**

The medication is well-tolerated by the patients. If doses higher than recommended are administered patients may experience nausea and allergic reaction.

**DOSAGE AND ADMINISTRATION**

*Syrup Rotavit Kids* should be taken enterally after food. Shake the bottle before every use.

If necessary, the medication may be diluted in small amount of water, fruit juice or baby food.

Children between 3-6 months-old – 2.5 ml of syrup once daily;

Children between 7 months-old and 5 years-old –5 ml of the syrup once daily;

Children over 5 years-old – 5 ml of the syrup 2 times a day;
A measuring cup with marks of 2.5 ml, 5 ml, 10 ml, 15 ml and 20 ml is provided for accurate dosage.

Duration of treatment is determined by a doctor.

PACKAGING

Syrup for enteral administration is in a 150 ml yellow glass bottle with child-resistant cap. 1 bottle together with a leaflet and a measuring cup are in a carton box.