Summary of Product Characteristics

FERROVIT

1. Name of the Medicinal Product

1.1 Product Name

FERROVIT

1.2 Strength

Ferrous fumarate	162 mg
Providing Iron 53.25 mg	
Folic acid	0.75 mg
Vitamin B12 (Cyanocobalamin)	7.5 mcg

1.3 Pharmaceutical Dosage Form

Capsule, soft

2. Qualitative and Quantitative Composition

2.1 Qualitative Declaration

2.2 Quantitative Declaration

Each softgel capsule contains:

Ferrous fumarate	162 mg
Providing Iron 53.25 mg	
Folic acid	0.75 mg
Vitamin B12 (Cyanocobalamin)	7.5 mcg

For a full list of excipients, see section 6.1.

3. Pharmaceutical Form

Brown color, oily suspension, filled in 10 minim, oblong, red opaque soft gelatin capsule

4. Clinical Particulars

4.1 Therapeutic indications

For prevention and treatment of Iron Deficiency Anemia in pregnant woman and anemias. [1.1, 1.2, 4.1]

4.2 Posology and method of administration

Posology

Take 1 capsule once daily after meals or as directed by a physician. [1.3, 1.4, 2.1, 3.1]

Method of administration

Oral administration. Swallow the capsule whole with a full glass of water or other liquid.
Do not chew the capsules.

4.3 Contraindications

Contra-indicated in patients with a known hypersensitivity to the product or its ingredients. [2.2, 3.2, 4.2]

Use in patients with haemosiderosis, haemochromatosis and haemoglobinopathies.[4.3, 5.1]

Use in patients anaemias other than those due to iron deficiency. [5.1]

Use in patients with inflammatory bowel disease, including regional enteritis and ulcerative colitis, intestinal strictures and diverticulae. [5.1]

Concomitant use with parenteral iron. [5.1]

Use in patients with active peptic ulcer. [5.1]

Use in patients who require repeated blood transfusion. [5.1]

4.4 Special warnings and precautions for use

FERROVIT is intended only for the prevention of iron and folic acid deficiencies.

Iron preparations should be used with caution in patients with erythropoietic protoporphyria. [5.2]

Iron preparations colour the faeces black, which may interfere with tests used for detection of occult blood in the stools. [5.2]

4.5 Interaction with other medicinal products and other forms of interaction

Iron chelates with concomitantly administered tetracyclines, and absorption of both agents may be impaired, allow an interval of 2-3 hours if treatment with both drugs is necessary. Iron also chelates with acetohydroxamic acid reducing the absorption of both. [5.3]

Absorption of iron may be reduced in the presence of antacids and proton pump inhibitors which reduce stomach acid. Iron absorption may also be reduced in the presence of food (e.g. tea, coffee, wholegrain cereals, eggs and milk), neomycin and cholestyramine. Bicarbonates, carbonates, oxalates, or phosphates, may impair the absorption of iron by the formation of insoluble complexes. [5.3]

Iron absorption may be reduced with calcium, oral magnesium salts and other mineral supplements, zinc and trientine. If treatment with both iron and trientine is necessary a suitable interval is advised. [5.3]

The response to iron may be delayed in patients receiving systemic chloramphenicol. Chloramphenicol delays plasma clearance of iron and incorporation of iron into red blood cells by interfering with erythropoiesis. [5.3]

The hypotensive effect of methyldopa is reduced by iron. [5.3]

Concomitant use of iron and dimercaprol should be avoided as toxic complexes may form. [5.3]

Iron reduces the absorption of fluoroquinolones, levodopa, carbidopa, entacapone, bisphosphonates, penicillamine, thyroid hormones such as levothyroxine (give at least 2 hours apart), mycophenolate, cefdinir and zinc. Iron possibly reduces the absorption of eltrombopag (give at least 4 hours apart). [5.3]

Serum levels of anticonvulsant drugs may be reduced by the co-administration of folate e.g. folic acid possibly reduces the plasma concentration of phenobarbital, phenytoin and primidone. [5.3]

Concomitant use of folic acid with raltitrexed should be avoided. [5.3]

Absorption of folic acid is possibly reduced by sulfasalazine. [5.3]

Cholestyramine, Colestipol, Colchicine, Metformin, may decrease the absorption of folic acid or vitamin B12 and these drugs when used concomitantly. [2.3, 3.3, 5.3]

Antibiotics, H2 blockers, Potassium chloride, Proton pump inhibitors, may decrease the absorption of vitamin B12 and these drugs when used concomitantly. [3.3, 5.3]

4.6 Pregnancy and lactation

FERROVIT is suitable for use during pregnancy and breastfeeding. [5.4]

4.7 Effects on ability to drive and use machines

FERROVIT has no influence on the ability to drive and use machines. [5.5]

4.8 Undesirable effects[5.6]

Side effects may be minimised by taking the product with or after food or by starting with a small dose and increasing gradually.

The incidences of undesirable effects are tabulated below. They are listed by system organ class and frequency defined as follows:

- Very common (≥1/10)
- Common (≥1/100 to <1/10)
- Uncommon (≥1/1,000 to <1/100)
- Rare (≥1/10,000 to <1/1,000)
- Very rare (<1/10,000)
- Not known (cannot be estimated from the available data).

Gastrointestinal Disorders	*Rare*: Gastro-intestinal disturbances (e.g. nausea, vomiting, constipation, diarrhoea)
Immune System Disorders	*Rare:* Allergic reactions *Not known:* Anaphylactic reaction
Metabolism and Nutrition Disorders	*Not known:* Haemosiderosis may occur as a result of excessive or mistaken therapy.

4.9 Overdose[5.7]

Iron overdosage is an acute emergency requiring urgent medical attention. An acute intake of 75mg/kg of elemental iron is considered extremely dangerous in young children.

Symptoms:

Initial symptoms of iron overdosage include nausea, vomiting, diarrhoea, abdominal pain, haematemesis, rectal bleeding, lethargy and circulatory collapse. Hyperglycemia and metabolic acidosis may occur. However, if overdosage is suspected, treatment should be implemented immediately. In severe cases, after a latent phase, relapse may occur after 24-48 hours manifested by hypotension, coma, hypothermia, hepatocellular necrosis, renal failure, pulmonary oedema, diffuse vascular congestion, coagulopathy and/or convulsions. In many cases, full recovery may be complicated by long-term effects such as hepatic necrosis, toxic encephalitis, CNS damage and pyloric stenosis.

Treatment:

The following steps are recommended to minimise or prevent further absorption of the medication.

Children:

1. Administer an emetic such as syrup of ipecac.

2. Emesis should be followed by gastric lavage with desferrioxamine solution (2g/l). This should then be followed by the installation of desferroxamine 5g in 50 – 100ml water, to be retained in the stomach. Inducing diarrhoea in children may be dangerous and should not be undertaken in young children. Keep the patient under constant surveillance to detect possible aspiration of vomitus – maintain suction apparatus and standby emergency oxygen in case of need.

3. Severe poisoning:

In the presence of shock and/or coma with high serum iron levels (serum iron >90umol/l) immediate supportive measure plus IV infusion of desferrioxamine should be instituted. Desferrioxamine 1 5mg/kg body weight should be administered every hour by slow IV infusion to a maximum 80mg/kg/24 hours.

Warning:

Hypotension may occur if the infusion rate is too rapid.

4. Less severe poisoning: i.m desferroxamine 1g 4-6-hourly is recommended.

5. Serum iron levels should be monitored throughout.

Adults:

Treatment of iron overdose in pregnancy should be as for the non-pregnant patient and if clinically indicated, treatment with desferrioxamine should not be withheld.

1. Administer an emetic.

2. Gastric lavage may be necessary to remove drug already released into the stomach.

This should be undertaken using a desferrioxamine solution (2g/l).

Desferrioxamine 5g in 50-100ml water should be introduced into the stomach following gastric emptying. Keep the patients under constant surveillance to detect possible aspiration of vomitus; maintain suction apparatus and standby emergency oxygen in case of need.

3. A drink of mannitol or sorbitol should be given to induce small bowel emptying.

4. In the presence of shock and/or coma with high serum iron levels (>142umol/l) immediate supportive measures plus IV infusion of desferrioxamine should be instituted.

The recommended dose of desferrioxamine is 5mg/kg/h by a slow IV infusion up to a maximum of 80mg/kg/24 hours.

Warning:

Hypotension may occur if the infusion rate is too rapid.
5. Less severe poisoning:

i.m. deferrioxamine 50mg/kg up to a maximum dose of 4g should be given.

6. Serum iron levels should be monitored throughout.

5. Pharmacological Properties

5.1 Pharmacodynamic properties

Iron is necessary for the production of hemoglobin. [4.1]

Folate participates in several key biological processes, including the synthesis of DNA, RNA and proteins. Folate plays a central role in the formation of nucleic acid precursors, such as thymidylic acid and purine nucleotide, which are essential for nucleic acid synthesis and cell division. [2.4]

Vitamin B12 works in close partnership with folate in the synthesis of the building blocks for DNA and RNA synthesis as well as the synthesis of molecules important for the maintenance of the integrity of the genome. The hematological effects of the deficiency are identical to that of folate deficiency and are caused by interference with DNA synthesis. [3.4]

5.2 Pharmacokinetic properties

Absorption
Folic acid is rapidly absorbed, mainly from the proximal part of the small intestine. [5.8]

Iron is irregularly and incompletely absorbed from the gastro-intestinal tract, the main site of absorption being the duodenum and jejunum. Absorption is aided by the acid secretion of the stomach or by dietary acids, and is more readily affected when the iron is in the ferrous state. Absorption is also increased in conditions of iron deficiency or in the fasting state, but is decreased if body stores are overloaded. [5.8]

Vitamin B12 bind to proteins called haptocorrins or R proteins, which are secreted by the salivary glands and gastric mucosa. Vitamin B12 is secreted in the bile and reabsorbed via the enterohepatic circulation. Some of the B12 secreted in the bile is excreted in the feces. [3.5]

5.3 Preclinical safety data

Not applicable

6. Pharmaceutical Particulars

6.1 List of excipients

Vanillin, Aerosil 200, Beewax White, Vegetable Oil Partial Hydrogenated, Lecithin LV, Soybean Oil, Gelatin, Glycerin, Carmoisine, Ponceau 4R, Sunset Yellow, Titanium Dioxide, Purified Water

6.2 Incompatibilities

Not applicable

6.3 Shelf life

Two years from manufacturing date

6.4 Special precautions for storage

Store below 30°C in a dry place, away from direct sunlight.

6.5 Nature and contents of container

Capsule, soft

Unit carton containing 1x10 softgel capsules blister packed.
Unit carton containing 3x10 softgel capsules blister packed.
Unit carton containing 5x10 softgel capsules blister packed.
Unit carton containing 6x10 softgel capsules blister packed.
Unit carton containing 10x10 softgel capsules blister packed.

6.6 Special precautions for disposal and other handling

No special requirements.

7. Marketing Authorization Holder

MEGA LIFESCIENCES Public Company Limited
Samutprakarn, Thailand

8. Marketing Authorization Number

[.....]

9. Date of First Authorization/Renewal of the Authorization

DD/MM/YYYY

10. Date of Revision of the Text

DD/MM/YYYY