

## Ferric Ammonium Citrate

381; Ammonium Ferric Citrate; Citrato amónico férrico; Demir III Amonyum sitrat; Ferricum Citricum Ammoniatum; Iron and Ammonium Citrate.

CAS — 1185-57-5.

ATC — V08CA07.

ATC Vet — QV08CA07.

### Pharmacopoeias. In US.

**USP 31** (Ferric Ammonium Citrate). It contains between 16.5% and 18.5% of iron. Store in airtight containers at a temperature of 8° to 15°. Protect from light.

### Profile

Ferric ammonium citrate is given orally as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is also used as a food additive, as an acidity regulator, anticaking agent, or source of iron. It has been used as a colouring agent.

### Preparations

**USP 31:** Ferric Ammonium Citrate for Oral Solution.

### Proprietary Preparations (details are given in Part 3)

**Braz.:** Vinho Ferruginoso†; **Gr.:** Ferriseltz†; **India:** Rubraplex; **Ital.:** Sciroppo Fenoglio†; **Neth.:** Ferriseltz; **Port.:** Cobalt†; **Spain:** Ferriseltz; **Turk.:** Ferro; Nuklofer Tonik; Samson; Tonoferrin; **Venez.:** Dociron†.

**Multi-ingredient:** **Arg.:** ITE B12 Forte; **Austria:** Ferrovin-Chinaeisenwein; **Braz.:** Ferrobent†; Ferrotrat B12 Plus; Ferrotrat B12†; Hematiase B12; Hepavitose†; Regulador Xavier N-2†; Rubrobin†; **Canad.:** Maltlevol; **Ger.:** Praefeminon plus†; **Hong Kong:** Nutroplex; **India:** Blosyn; Dexorange; Ferradol; Ferrochelat; Genfol; Globac-Z; Haem Up; Hepatoglobine; Vitamin; **Ital.:** Emopon; **Malaysia:** Nutroplex†; **Singapore:** Nutroplex; **UK:** Ironorm; Lexpec with Iron-M†; Lexpec with Iron†; **USA:** Gentol; Gentonic; **Venez.:** Belferron; Cianofer; Fercobre B-12†; Fercobre†.

## Ferric Carboxymaltose (USAN, rINN)

Carboximaltosa Férrica; Carboxymaltose Ferrique; Ferricum Carboxymaltosum; VIT-45.

Феррик Карбоксимальтоз

CAS — 9007-72-1.

### Profile

Ferric carboxymaltose is used as a source of parenteral iron (p.1949) for iron-deficiency anaemia (p.1951) when oral iron therapy is ineffective or impractical. Dosage should be individualised and the calculated total cumulative dose of iron should not be exceeded. Ferric carboxymaltose is given by intravenous bolus injection over 1 to 2 minutes, in doses supplying up to 200 mg of iron up to 3 times weekly, or diluted in sodium chloride 0.9% by intravenous infusion in a dose of up to 1 g of iron no more than once weekly. It should not be given by intramuscular or subcutaneous injection. In patients on dialysis it may be given undiluted directly into the venous limb of the dialyser. For further information relating to the parenteral use of iron, see Iron Dextran, p.1951.

### Preparations

### Proprietary Preparations (details are given in Part 3)

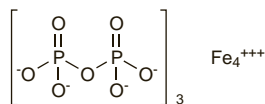
**Cz.:** Ferinject; **Switz.:** Ferinject; **UK:** Ferinject.

## Ferric Pyrophosphate

Férrico, pirofosfato; Iron Pyrophosphate.

Fe<sub>4</sub>(P<sub>2</sub>O<sub>7</sub>)<sub>3</sub> = 745.2.

CAS — 10058-44-3.



### Profile

Ferric pyrophosphate is given orally as a source of iron (p.1949) for iron-deficiency anaemia (p.1951).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Multi-ingredient:** **Austral.:** Incremin Iron; **Chile:** Incremin†; **Mex.:** Incremin Con Hierro; **USA:** Vitafof; Vitalize.

## Ferritin

Ferritina.

### Profile

Ferritin is the major iron storage protein of vertebrates, found mainly in the liver, spleen, intestinal mucosa, and bone marrow and consisting of a soluble protein shell (apoferritin) with a core of crystalline ferric hydroxyphosphate complex. It has been given orally as a source of iron (p.1949) in iron-deficiency anaemias (p.1951).

## Preparations

### Proprietary Preparations (details are given in Part 3)

**Mex.:** Ferrivax; **Spain:** Ferroprolina; Hierco†; Kilor; Profer.

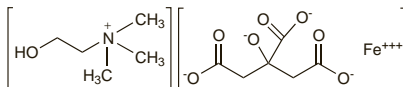
## Ferrocholine (rINN)

Ferrocholinatum; Ferrocolinato.

Феррохолинат

C<sub>11</sub>H<sub>20</sub>FeNO<sub>9</sub>·2H<sub>2</sub>O = 402.2.

CAS — 1336-80-7.



### Profile

Ferrocholine is a chelate prepared by reacting equimolar quantities of freshly precipitated ferric hydroxide with choline dihydrogen citrate. It is given orally as a source of iron (p.1949) for iron-deficiency anaemia (p.1951).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Spain:** Podertonico.

## Ferrous Ascorbate

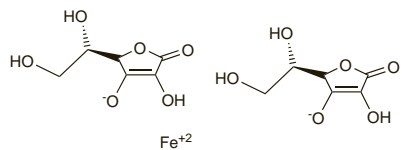
Ferroso, ascorbato.

C<sub>12</sub>H<sub>14</sub>FeO<sub>12</sub> = 406.1.

CAS — 24808-52-4.

ATC — B03AA10.

ATC Vet — QB03AA10.



### Profile

Ferrous ascorbate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in usual doses of up to 1.47 g daily (equivalent to about 200 mg of iron daily).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Fr.:** Ascofer.

**Multi-ingredient:** **Austria:** China-Eisenwein.

## Ferrous Aspartate

Ferroso, aspartato.

C<sub>8</sub>H<sub>12</sub>FeN<sub>2</sub>O<sub>8</sub>·4H<sub>2</sub>O = 392.1.

ATC — B03AA09.

ATC Vet — QB03AA09.

### Profile

Ferrous aspartate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in usual doses of up to 750 mg daily (equivalent to about 100 mg of iron daily).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Belg.:** Spartocine†; **Fin.:** Spartocine; **Ger.:** Spartocine N†; **USA:** FE Aspartate.

## Ferrous Chloride

Ferroso, cloruro. Iron (II) chloride tetrahydrate.

FeCl<sub>2</sub>·4H<sub>2</sub>O = 198.8.

CAS — 7758-94-3 (anhydrous ferrous chloride); 13478-10-9 (ferrous chloride tetrahydrate).

ATC — B03AA05.

ATC Vet — QB03AA05.

### Profile

Ferrous chloride is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in a usual dosage of about 350 to 700 mg daily in divided doses (equivalent to about 100 to 200 mg of iron daily).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Fr.:** Fer UCB; **Pol.:** Hemofer; **Switz.:** Ferrascorbin.

**Multi-ingredient:** **Switz.:** Ferrascorbin.

## Ferrous Fumarate

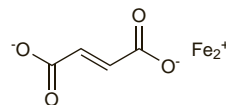
Demir Fumarat; Ferrofumaraatti; Ferrofumarat; Ferrosi fumaras; Ferroso, fumarato; Fumaran železnatý; Fumarate ferreux; Geležies(II) fumaratas; Vas(II)-fumarát.

C<sub>4</sub>H<sub>2</sub>FeO<sub>4</sub> = 169.9.

CAS — 141-01-5.

ATC — B03AA02.

ATC Vet — QB03AA02; QB03AD02.



### Pharmacopoeias. In Chin., Eur. (see p.vii), Int., US, and Viet.

**Ph. Eur. 6.2** (Ferrous Fumarate). A fine, reddish-orange or reddish-brown powder. Slightly soluble in water; very slightly soluble in alcohol. Store in airtight containers. Protect from light.

**USP 31** (Ferrous Fumarate). A reddish-orange to red-brown, odourless powder, which may contain soft lumps that produce a yellow streak when crushed. Slightly soluble in water; very slightly soluble in alcohol. Its solubility in dilute hydrochloric acid is limited by the separation of fumaric acid.

### Profile

Ferrous fumarate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in usual doses of up to 600 mg daily (equivalent to about 200 mg of iron daily); doses of up to 1.2 g daily (equivalent to about 400 mg of iron daily) may be used if necessary.

## Preparations

**BP 2008:** Ferrous Fumarate and Folic Acid Tablets; Ferrous Fumarate Capsules; Ferrous Fumarate Oral Suspension; Ferrous Fumarate Tablets.

**USP 31:** Ferrous Fumarate and Docusate Sodium Extended-release Tablets; Ferrous Fumarate Tablets.

### Proprietary Preparations (details are given in Part 3)

**Austria:** Ferretab; Ferrobet; **Braz.:** Ferroking†; **Canad.:** Neo-Fer; Palafer; **Cz.:** Ferronat; **Fr.:** Fumafer; **Ger.:** Ferrokapstul†; Ferrum Hausmann; Rulofer N; **Hung.:** Ferroglobin-B12; **Indon.:** Ferce; **Ir.:** Galfer; **Malaysia:** Firon†; **Mex.:** Biofuroso; Croferron; Femadin; Ferro-Terapina; Fervat; Fumavit; Gestaferron; Medifer; **Norw.:** Nycoplus Neo-Fer; **Singapore:** Iron Beacons; **Swed.:** Erco-Fer; **Switz.:** Ferrum Hausmann; Lufar; **Thai.:** F-Tab; Femarate; Ferdek; Femarsian; Femate; **UK:** Fersaday; Fersamal; Galfer; **USA:** Femiron; Feostat†; Ferretts; Ferro-Dok; Hemaspant†; Hemocyte; Nephro-Fer; Vitron-C; **Venez.:** Ferol; Ferroce; Fumafer†.

**Multi-ingredient:** **Arg.:** Anemidox-Ferrum; Anemidox-Solutab; Autrinic Compuesto†; Ferretab Compuesto; Ferrocebrina; Hematon†; Hierro Folio; **Austral.:** Bio Iron; Extralife PMS-Care; Medinat PMT-Eze†; **Austria:** Ferretab Comp; **Belg.:** Gestiferol; **Braz.:** Betozone; Iloban; Rubralong†; **Canad.:** Appedrine†; Fortiplex†; Neo-Fer CF; Palafer CF; **Chile:** Cronofemil†; Ferranim; Ferro Vitaminico; Folifer; Microfemil†; Orlon; **Cz.:** Ferretab Compositum; **Fin.:** Matrifolin; **Ger.:** Ferrodix†; **Hong Kong:** Fortifer; **India:** Anemidox; Autrin; Elferri-Z; Fervit†; Globac-Z; Hems; Hepasules; Hepatoglobine; Livogen Captab; Livogen-Z; Livogen†; Siderfol; Softoron; Softoron-Z; **Indon.:** Calmin-AF; Dasabion; Emineton; Hemarate CE; Hemobion; Natabion; Nichobion; Odiron-C; Prenamia; Prenatin-D†; Rejuvan; Vitachol; Vitalex; Vitamam 2; Vitamam 3; Vitonal-F; **Ir.:** Ferrocap F†; Galfer FA; Givitol; **Israel:** Folex; Foric; **Malaysia:** Ferrovit; Odiron-C†; **Mex.:** Autrin†; Dialet AF; Ferlor AF†; Ferro Grin; Ferrottemp; Fumarol; Yemifer-H†; **Philipp.:** Anemicon Plus; Anixon; Apbeon with Iron; Beniforte; Essener; Fergesol; Ferosal; Ferroplex; Foramefer; Fortifer; Fortifer FA; Fumiron + B; Globifer; Harvifer; Hemarate; Hemobion; Iroplex; Macroebe with Iron; Molvite-OB; Multispec-E; Multiviron; Nakaron; Trev-Iron; Tri-HEMIC; Trust Pill; Zoiron; **Rus.:** Ferretab Comp (Деппетаб Комп); **S.Afr.:** Autrin; Pregamal; **Singapore:** Iron Melts; Odiron-C; Vansse; **Spain:** Folferron; **Switz.:** Duofer; Duofer Fol; **Thai.:** Adnemic F†; Adnemic†; Biocalron; FB Fer; FBC; FBC Plus; FBC†; Fer-200; Ferli-6; Ferosis; Ferplus-B; Ferropro; Hemarate; Hemolax; Intricon; Obimin-AZ; Polycolvit; Polyvit; Trinsic†; **Turk.:** Vi-Fer; **UK:** Galfer FA; Meterfol; Pregaday; **USA:** ABC to Z; Anemagen OB†; Anemagen†; Berocca Plus; Caltrate + Iron & Vitamin D; Certagen; Cevi-Fer†; Chromagen; Chromagen FA; Chromagen Forte; Contrin; Estrostep Fe; Femcon Fe; Ferotrinic; Ferragels Forte; Fetrin; Formula B Plus; Fumatrinic; Geriot; Geval T; Hem Fe; Hematinic; Hematinic Plus; Hemocyte Plus; Hemocyte-F; Junel Fe; Livitronic-f; Loestrin Fe; Nephro-Fer Rx†; Parvlex; Pronemia Hematinic; Repliva; Tandem; Thera Hematinic; Theragenix-H†; Tilia Fe; Tolfirnic; Tri-Legest; Tri-HEMIC; Trinsic†; Vitafof; Yelets; Zodeac; **Venez.:** Cobalfer; Fefol; Ferco†; Ferroliver; Ferronorm; Folifer B-12; Hepafol con B-12.

## Ferrous Gluceptate

Ferroso, gluceptato; Ferrous Glucoheptonate.

Fe(C<sub>7</sub>H<sub>13</sub>O<sub>8</sub>)<sub>2</sub> = 506.2.

CAS — 25126-38-9.

### Profile

Ferrous gluceptate is given orally as a source of iron (p.1949) for iron-deficiency anaemia (p.1951).

### Preparations

### Proprietary Preparations (details are given in Part 3)

**Chile:** Unifer.

**Multi-ingredient:** **Arg.:** Egestan Hierro; **Spain:** Clamarvit†; Normovite Antianemico.

## Ferrous Gluconate

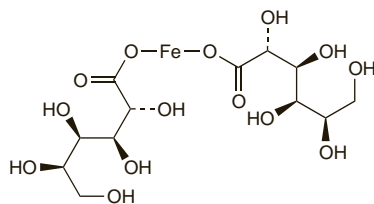
E579; Eisen(II)-Gluconat; Ferroglykunaatti; Ferroglykonat; Ferrosi gluconas; Ferrosi Gluconas Hydricus; Ferroso, gluconato; Geležies(II) gliukonatas; Gluconate ferreux; Glukonan železnatý hydrát; Vas(II)-glükonát; Želaza(II) glukonian. Iron (II) di(D-gluconate).

$C_{12}H_{22}FeO_{14} \cdot xH_2O$ .

CAS — 299-29-6 (anhydrous ferrous gluconate); 12389-15-0 (ferrous gluconate dihydrate).

ATC — B03AA03.

ATC Vet — QB03AA03.



(anhydrous ferrous gluconate)

**Pharmacopoeias.** In *Eur.* (see p.vii).

*Chin.* and *US* specify the dihydrate.

**Ph. Eur. 6.2** (Ferrous Gluconate). A greenish-yellow to grey powder or granules. It contains not less than 11.8% and not more than 12.5% of ferrous iron calculated with reference to the dried substance. Freely but slowly soluble in water producing a greenish-brown solution, more readily soluble in hot water; practically insoluble in alcohol. A 10% solution in water has a pH of 4.0 to 5.5 three to four hours after preparation. Protect from light.

**USP 31** (Ferrous Gluconate). A yellowish-grey or pale greenish-yellow, fine powder or granules having a slight odour resembling that of burnt sugar. Soluble 1 in 5 of water; practically insoluble in alcohol. A 5% solution in water is acid to litmus. Store in airtight containers.

### Profile

Ferrous gluconate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in doses of up to 1.8 g daily (equivalent to up to 210 mg of iron daily).

### Preparations

**BP 2008:** Ferrous Gluconate Tablets;

**USP 31:** Ferrous Gluconate Capsules; Ferrous Gluconate Elixir; Ferrous Gluconate Tablets.

**Proprietary Preparations** (details are given in Part 3)

**Austral:** Fergon†; **Austria:** Losferron; **Belg:** Losferron; **Canad:** Novo-Ferroglyc; **Chile:** Glucoferro K; **Cz:** Losferron; **Ger:** Eisen-Sandoz; Ferrum Verla; Losferron; Rulofor G; Vitaferro; **Israel:** Ferro; Ferro-Nes; **Ital:** Auxofer; Bioferr; Bioglyfer; Blizer; Blustark; Crom; Cromatonferro; Effegyn; Emoron†; Emoxiron; Englobin; Eritropur; Ferig; Ferro Complex; Ferrogyn; Flexifer†; Glorox; Glucoferro; Losferron; Megaferr; Monoferr; Protioferro; Sidervin; Sustemial; **Neth:** Losferron; **NZ:** Fergon†; **Pol:** Ascofer; **Port:** Anemital†; Bioferro; Hemototal; Losferron†; **Rus:** Ferronal (Ферронал); **Spain:** Ferrum Sandoz; Losferron; **Switz:** Loesfer†; Lufer; **Turk:** Losferron; **USA:** Fergon; **Venez:** Ferroper†; Irolent†; Salfer; Yisafer.

**Multi-ingredient:** **Austria:** Losferron-Fol; **Fr:** Tot'Hema; **Ger:** Biovital Aktiv†; Ferro-C-Calcium; Ferrodix†; Floradix Krauterblut; **India:** Elfer†; Gynae-CVP; JP Tone; Livogen Hemtonic; Pentavite†; **Indon:** Adfer; Biosanbe; Diabion; Embion; Habebion; Inbion; Maltiron; Muveron; Neogobion; Opibion; Sangobion; Sangofer; Sangovitin; Tropifer; Vitabion; **Malaysia:** Sangobion; **Philipp:** Sangobion; **Pol:** Additiva Ferrum; **Port:** Tot'Hema; **Rus:** Tot'Hema (Тотема); **S.Afr:** Kiddie Vite†; **Singapore:** Neogobion; Sangobion; **Spain:** Clamarvit†; **Switz:** Duofer; Duofer Fol; Ferrascorbin; **Thai:** Ferro-Be-Sian; Glufer-C; **Turk:** Ferro-Vital; **UK:** Foresight Iron Formula; **USA:** Compete; Ferralet Plus†; Hytinit†; Ironin-G; Mission Surgical Supplement†; **Venez:** Gestocal†.

## Ferrous Glycine Sulfate

Demir Glisin Sülfat; Ferroglycini Sulfas; Ferroglycinsulfat; Ferroglysinisulfaatti; Ferroso de glicina, sulfato; Ferrous Aminoacetosulphate; Ferrous Glycine Sulphate.

CAS — 14729-84-1.

ATC — B03AA01.

ATC Vet — QB03AA01.

### Profile

Ferrous glycine sulfate is a chelate of ferrous sulfate and glycine used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in doses containing the equivalent of up to 150 mg of iron daily.

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Braz:** Neutrofer; **Chile:** Chelitin; **Denm:** Glycifer; Niferex; **Fin:** Obsidan; **Ger:** Ferro Sanol; Ferro sanol duodenal; **Gr:** Ferro Sanol; **Irl:** Plesmet; **Port:** Ferroctid†; Niferex; **Spain:** Ferbisol; Ferro Sanol; Glutaferro;

**Swed:** Niferex; **Switz:** Ferrosanol duodenal; **Turk:** Ferro Sanol; **UK:** Plesmet†; **USA:** Gentle Iron; **Venez:** Herronduo.

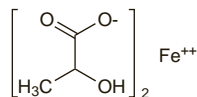
**Multi-ingredient:** **Braz:** Neutrofer Folico; **Fin:** Obsidan comp; **Ger:** Ferro sanol comp; Ferro sanol gyn; **India:** Fecontin-F; Fecontin-Z; **Turk:** Ferro Sanol B; **USA:** Repliva; **Venez:** Herrongyn.

## Ferrous Lactate

E585; Ferroso, lactato; Iron Lactate.

$C_6H_{10}FeO_6 \cdot 3H_2O = 288.0$ .

CAS — 5905-52-2 (anhydrous ferrous lactate); 6047-24-1 (ferrous lactate trihydrate).



(anhydrous ferrous lactate)

### Profile

Ferrous lactate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951).

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Arg:** Cromatonbic Ferro†; **S.Afr:** Ferro Drops L; **Spain:** Cromatonbic Ferro.

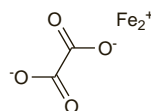
**Multi-ingredient:** **Hung:** Fagifort†.

## Ferrous Oxalate

Ferroso, oxalato; Ferrum Oxalicum Oxydulatum; Iron Proxalate.

$C_2FeO_4 \cdot 2H_2O = 179.9$ .

CAS — 516-03-0 (anhydrous ferrous oxalate); 6047-25-2 (ferrous oxalate dihydrate).



(anhydrous ferrous oxalate)

### Profile

Ferrous oxalate has been used as a source of iron (p.1949).

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** **Fr:** Disulone.

## Ferrous Succinate

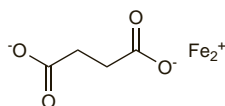
Ferroso, succinato.

$C_4H_4FeO_4 = 171.9$ .

CAS — 10030-90-7.

ATC — B03AA06.

ATC Vet — QB03AA06.



### Profile

Ferrous succinate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally in doses of up to about 600 mg daily (equivalent to up to about 200 mg of iron daily).

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Arg:** Ferdomaco; **Ger:** Ferricit 2; **Swed:** Ferronyn S.

**Multi-ingredient:** **India:** Hematrine.

## Ferrous Sulfate

Demir Sülfat; Eisen(II)-Sulfat; Ferreux (Sulfate); Ferrosi Sulfas; Ferrosi sulfas heptahydricus; Ferroso, sulfato; Ferrosulfattheptahydraatti; Ferrosulfattheptahydrat; Ferrous Sulphate; Ferrum Sulfuricum Oxydulatum; Geležies(II) sulfatas heptahidratas; Iron (II) Sulphate Heptahydrate; Iron Sulphate; Sıran železnatý heptahydrát; Sulfate ferreux heptahydraté; Vas(II)-szulfát; Želaza(II) siarczan.  $FeSO_4 \cdot 7H_2O = 278.0$ .

CAS — 7720-78-7 (anhydrous ferrous sulfate); 7782-63-0 (ferrous sulfate heptahydrate).

ATC — B03AA07.

ATC Vet — QB03AA07; QB03AD03.

**NOTE.** Crude ferrous sulfate is known as Green Vitriol or Green Copperas.

**Pharmacopoeias.** In *Chin.*, *Eur.* (see p.vii), *Int.*, *Jpn.*, *US*, and *Viet.*

*Swiss* also includes ferrous sulfate sesquihydrate.

**Ph. Eur. 6.2** (Ferrous Sulphate Heptahydrate). A light green crystalline powder or bluish-green crystals, efflorescent in air. It is oxidised in moist air, becoming brown. Freely soluble in water; very soluble in boiling water; practically insoluble in alcohol. A 5% solution in water has a pH of 3.0 to 4.0. Store in airtight containers.

**USP 31** (Ferrous Sulfate). Pale bluish-green, odourless, crystals or granules. It is efflorescent in dry air and oxidises readily in moist air to form brownish-yellow basic ferric sulfate. Soluble 1 in 1.5 of water and 1 in 0.5 of boiling water; insoluble in alcohol. A 10% solution in water is acid to litmus, having a pH of about 3.7. Store in airtight containers.

## Dried Ferrous Sulfate (USAN)

Dried Ferrous Sulphate; Exsiccated Ferrous Sulphate; Ferreux (sulfate) desséché; Ferrosi sulfas desiccatus; Ferrosi Sulfas Exsiccatus; Ferroso desecado, sulfato.

CAS — 13463-43-9.

**Pharmacopoeias.** In *Eur.* (see p.vii), *Int.*, *US*, and *Viet.*

**Ph. Eur. 6.2** (Ferrous Sulphate, Dried). Hydrated ferrous sulphate deprived of part of its water of hydration by drying. A greyish-white powder which is oxidised in moist air, becoming brown. It contains 86.0 to 90.0% of  $FeSO_4$ . Slowly but freely soluble in water, very soluble in boiling water; practically insoluble in alcohol. A 5% solution in water has a pH of 3.0 to 4.0. Store in airtight containers.

**USP 31** (Dried Ferrous Sulfate). A greyish-white to buff-coloured powder consisting primarily of ferrous sulfate monohydrate with varying amounts of ferrous sulfate tetrahydrate. It contains 86.0 to 89.0% of  $FeSO_4$ . Slowly soluble in water; insoluble in alcohol.

### Profile

Ferrous sulfate is used as a source of iron (p.1949) for iron-deficiency anaemia (p.1951). It is given orally; the dried form is often used in solid dosage forms and the heptahydrate in liquid dosage forms. Usual doses of dried ferrous sulfate are up to 600 mg daily (equivalent to 180 to 195 mg of iron daily, this figure being somewhat variable depending on the purity and water content of the salt).

Ferrous sulfate oxidised with nitric and sulfuric acids yields ferric subsulfate solution, also known as Monsel's solution, which has been used as a haemostatic.

### Preparations

**BP 2008:** Ferrous Sulphate Tablets; Paediatric Ferrous Sulphate Oral Solution; Prolonged-release Ferrous Sulphate Tablets;

**BPC 1973:** Compound Ferrous Sulphate Tablets;

**USP 31:** Ferric Subsalt Solution; Ferrous Sulfate Oral Solution; Ferrous Sulfate Syrup; Ferrous Sulfate Tablets.

**Proprietary Preparations** (details are given in Part 3)

**Arg:** Eurofer; Factofer; Feklon; Fer-In-Sol; Ferleaf†; Ferricol; Ferrocebrina; Ferromas; Ferrometion; Hemoferron; Iberol; Medifer; Siderblut; Vitaferro†; **Austral:** Ferro-Gradumet; Ferrograd C; **Austria:** Aktiferrin; Ferro-Gradumet; Ferrograd C; Infa-Tardyferon; Tardyferon; **Belg:** Ferro-Grad; Ferro-Gradumet; **Braz:** Anemiplust†; Cimeler; Fer-In-Sol; Ferrison†; Ferronil; Ferrisol; Ferrototal; Fertron†; Hematoferr†; Iberol; Ironfer; Lomifer†; Neck-Fer†; Perfer†; Saloner†; Sulfatoferr†; Sulfur Plus; Sulferran Composto; Sulferron; Sulferron; Tratiferr†; **Canad:** Fer-In-Sol; Ferro-Grad; Ferodan; Ferofate; Slow-Fe; **Chile:** Ferrisol; Ferrigot; Ferronalt; Iberol Simple†; **Cz:** Aktiferrin; Eisen-Diasporal†; Ferro-Gradumet†; Sorbifer; Tardyferon; **Denm:** Ferro; **Fin:** Duroferon; Retaferr†; **Fr:** Ferro-Grad vitamine C; Timoferol; **Ger:** Aktiferrin N; Celferro; Dreisaferr; Eisendrages-ratiopharm; Eryfer; Ferrrogamma; FERRONinfant N†; Haemoprotect; Hamatopan; Kendural C; Plastufer; Plastulen; Tardyferon; Vitaferro; **Gr:** Fer-In-Sol†; Microfer; Resoferon; Tardyferon; **Hong Kong:** Feospan†; Ferasol; Iron-200; **Hung:** Aktiferrin; Ferro-Gradumet; Sorbifer; Tardyferon; **Irl:** Feospan; Fer-In-Sol; Ferrograd; **Israel:** Ferro-Gradumet; Slow-Fe; **Ital:** Fer-In-Sol; Ferrograd; Ferrograd C; **Malaysia:** Feospan†; Retaferr; **Mex:** Fer-In-Sol; Ferifer; Forcil; Hemobion; Valdeferr; **Neth:** Ferro-Gradumet; Ferrograd; Protiferron; **Norw:** Duroferon; Ferronax; Nycoplus Ferro-Retard; **NZ:** Ferro-Gradumet; Ferrograd C; **Philipp:** Feosol; Feovit; Fer-In-Sol; Ferrglobin; Ferosal; Sorbifer; United Home Fersulfate Iron; **Pol:** Ferro-Gradumet; Hemofer; Sorbifer; Tardyferon; **Port:** Ferro-Gradumet; Tardyferon; **Rus:** Aktiferrin (Актиферрин); Ferro-Gradumet (Ферроградумет); Ferroplex (Ферроплекс); Hemofer (Гемофер); Sorbifer (Сорбифер); Tardyferon (Тардиферон); **S.Afr:** Ferro-Grad; Fesoferr; **Singapore:** Feospan†; **Spain:**

The symbol † denotes a preparation no longer actively marketed