

# SunActive® Fe-P80LK

## ENDOSOMAL IRON. GENTLE. SAFE. STABLE. NO TASTE.



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## PRODUCT SPECIFICATION

### Endosomal Iron Pyrophosphate Formulation

8% Iron, 100% water dispersible

Product code: 228690



SunActive® Fe-P80LK is a powder type, emulsified ferric pyrophosphate to fortify iron in food and beverage products. It is also especially tested and analysed for the use in food, beverages, and dietary supplements. Ferric pyrophosphate is an insoluble iron salt. Therefore, it does not exhibit unpleasant taste of iron-ion such as iron sulphate, iron citrate, etc. SunActive® Fe-P80LK solves the problem of precipitation of ferric pyrophosphate by supplying very small particles that are coated with an emulsifier layer that prevents from re-agglomeration and precipitation of the particles. Therefore, it is an iron form with **no taste**. Further, the bioavailability of iron supplied by SunActive® Fe-P80LK was investigated and was found to be equivalent to that of conventional water-soluble iron salts.

**Application:** Wide variety of foods, dairy products, powdered beverages, confectionaries, supplements, etc.

Elementary iron in SunActive® Fe series is not decomposed via oxidation or any other chemical reactions by co-ingredients such as vitamins or antioxidants, etc. Therefore, iron amount in food product shall not change during transportation or storage from the nutritional point of view. However, stability of colour, taste, and flavour of food products containing SunActive® Fe can be highly affected by co-ingredients used together. Especially, please be noted that SunActive® Fe can cause discoloration of food products if it is used together with vitamin C, vitamin B12, fruits juice and/or food colorants rich in polyphenolic compounds. Iron absorption to human body will be also inhibited by polyphenols, phytic acid, phosphate, dietary fiber (especially, water insoluble dietary fiber), and calcium.

### Specification:

Item	Specification Value	Methods & Condition
Appearance	White to light yellow powder	Visual inspection
Iron content	85.0 ± 5.0 mg/g	Atomic absorption spectrophotometry (AOAC 990.08)
Particle size	Not less than 99 % through	#60 mesh
Bulk density	0.6 - 1.0 g/ml	Loose bulk density
Loss on drying	Not more than 10.0%	105°C, 3 hours
Arsenic (as As <sub>2</sub> O <sub>3</sub> )	Not more than 1 µg/g	Atomic absorption spectrophotometry
Cadmium	Not more than 1 µg/g	Atomic absorption spectrophotometry
Lead	Not more than 1 µg/g	Atomic absorption spectrophotometry
Mercury	Not more than 0.1 µg/g	Atomic absorption spectrophotometry
Standard plate count	Not more than 1,000 cfu/g	Standard agar plate
Coliforms	Negative / 0.1g	BGLB method
E. Coli	Negative / 0.1g	EC Broth
Salmonella	Negative / 0.1g	Rappaport-vassiliadis agar plate
Mould	Not more than 100 cfu/g	Potato dextrose agar plate with chloramphenicol
Yeast	Not more than 100 cfu/g	Potato dextrose agar plate with chloramphenicol

### Composition:

Maltodextrin (from sweet potato/corn)	CAS 9050-36-6	21CFR 184.1444	EC 232-940-4
Ferric pyrophosphate	CAS 10058-44-3	21CFR 184.1304	EC 233-190-0
Lecithin (non-GMO sunflower)	CAS 8002-43-5	21CFR 184.1400	EC 232-307-2
Sodium chloride (processing aid)	CAS 7647-14-5	GRAS	EC 231-598-3

**Usage:** Use as such in powder form and disperse the powder in water before using. Use homogenizer or other equipment, if necessary.  
**Dosage:** 175 mg of SunActive Fe P80LK supply 14 mg iron = 100% of the RDA of Iron (=14 mg Fe).  
**Packaging:** Net 10 kg in a cardboard box, PE liner.  
**Shelf Life:** At least 60 months after the manufacturing date if kept in original unopened package.  
**Storage Conditions:** Store in dark, cool, and dry place.

Regulations related to the use of ingredients vary globally from region to region. It is highly advisable to confirm official regulatory implications prior to use in the intended application within each region and with each applicable regulatory agency. The information above is believed to be accurate and represents the best information currently available to us. Taiyo Kagaku and Taiyo GmbH make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own determination on the suitability of the information for their particular purposes. In no way shall Taiyo Kagaku and Taiyo GmbH be liable for any claims, losses, damages, lost profits or any special, indirect incidental, consequential or exemplary damages, howsoever arising from the sale or use of this material. Copyright © 2022 Taiyo GmbH. SunActive® is a registered trademark of Taiyo Kagaku Co., Ltd.