Ferric Pyrophosphate Specification Sheet

1. Basic Product Information

- **Product Name**: Ferric Pyrophosphate
- **Product Grade**: Food Nutrient Fortifier (Food Grade)
- **Executive Standard**: GB 1903.16-2016 National Food Safety Standard – Food Nutrient Fortifier
- **CAS No.**: 10058-44-3
- **Chemical Name**: Ferric Pyrophosphate
- **Molecular Formula**: $Fe_4(P_2O_7)_3 \cdot nH_2O$
- **Relative Molecular Mass (Anhydrous)**: 745.22
- **Appearance & Properties**: Yellowish white to yellowish brown powder, slightly iron-tasting, odorless.
- **Solubility**: Slightly soluble in water and acetic acid; freely soluble in inorganic acid, ammonia water, citric acid solution and alkaline solution.
- **Product Characteristics**: Light color, **high stability**, free of obvious iron odor, **high bioavailability**, and good compatibility with food ingredients.

2. Technical Specification Indexes (Physicochemical Indexes)

Item	Standard Specification
Iron (Fe) Content	24.0% ~ 26.0%
Loss on Ignition (Dry Basis)	≤20.0%
Lead (Pb)	≤4.0 mg/kg
Arsenic (As)	≤3.0 mg/kg
Total Mercury (Hg)	≤3.0 mg/kg
Chloride (as Cl)	≤3.55%
Sulfate (as SO_4)	≤0.12%
Heavy Metals (as Pb)	≤10 mg/kg

3. Microbial Limits (Food Grade)

- Total Aerobic Count: ≤1000 CFU/g
- Molds & Yeasts: ≤100 CFU/g
- Coliforms: ≤30 MPN/100g
- Salmonella: Absent/25g

4. Production Process

Adopt sodium pyrophosphate and ferrous sulfate (or ferric chloride) as raw materials, manufactured through synthetic reaction, filtration, washing, drying, crushing and sieving.

5. Packaging & Storage

- **Packaging**: 25kg/drum (paper drum / fiber drum), lined with double-layer food-grade polyethylene plastic bag, sealed for moisture proof.
- **Storage Conditions**: Store in cool, dry and well-ventilated place, keep tightly sealed; avoid direct sunlight, moisture and mixed storage with acid and alkaline substances.
- **Shelf Life**: 24 months (unopened original package)

6. Main Applications

Used as **food nutrient fortifier (iron supplement)**, suitable for iron fortification scenarios such as milk powder, infant formula food, cereal food, beverages, health food and table salt.

7. Compliance Statement

This product complies with national standard **GB 1903.16-2016**, relevant norms of **CAC** and **FCC**. All heavy metal, microbial and physicochemical indexes meet the requirements of International Food Codex.

Nutritional Facts of Ferric Pyrophosphate

Product Name: Ferric Pyrophosphate

Usage Recommendation: Add in accordance with **GB 2760** and nutrient fortifier application standards; Daily reference iron intake: Adults 15mg ~ 20mg

Nutritional Facts (Per 100g)

Nutrient Component	Content per 100g	Nutrient Reference Value Percentage (NRV%)
Energy	≤100 kJ	1%
Protein	≤0.5 g	1%
Fat	≤0.2 g	0%
Carbohydrate	≤1.0 g	0%
Iron (Fe)	24.0 g ~ 26.0 g	160000% ~ 173333%
Phosphorus (P)	12.0 g ~ 14.0 g	1714% ~ 2000%

Notes:

1. This nutritional fact sheet is calculated based on product standard indicators; actual data shall prevail with the third-party inspection report.
2. Iron is the **core fortifying ingredient**. Due to high content, it shall only be used as fortifier and **not for direct consumption**.
3. NRV% refers to China *National Food Nutrition Labeling Management Specification* (NRV: Iron 15mg, Phosphorus 700mg).