

Technical Data Sheet (TDS)

1. Product Overview

Product Name: Folic Acid (Vitamin B9) **English Name:** Folic Acid **CAS Number:** 59-30-3 **Formula:** C₁₉ H₁₉ N₇ O₆ **Molecular Weight:** 441.40 g/mol **Product Characteristics:** Water-soluble B-group vitamin, yellow to orange crystalline powder with no obvious odor, slightly soluble in water, insoluble in organic solvents. It is an essential nutrient for nucleic acid synthesis and cell division, plays a key role in fetal neural tube development, red blood cell formation and immune function regulation. Stable under normal temperature and sealed conditions, sensitive to strong light and high temperature, easy to decompose and lose activity.

2. Technical Specifications

Assay ≥98.5%; Appearance: Yellow to orange crystalline powder; Melting Point 250°C (decomposes); Loss on Drying ≤0.5%; Residue on Ignition ≤0.1%; Heavy Metals (Pb) ≤10 ppm; Heavy Metals (As) ≤2 ppm; Related Substances ≤0.5%; Solubility: Slightly soluble in water, insoluble in ethanol, chloroform and ether; No optical activity; pH Value (1% aqueous suspension, 25°C): 4.0~6.0.

3. Product Advantages

1. **Ultra-High Purity:** Assay up to 99.6%, low impurity content, meeting pharmaceutical, food and feed grade high-quality requirements.
2. **High Bioavailability:** Natural structural form, easy to be absorbed and utilized by human and animal bodies, with significant biological efficacy.
3. **Stable Quality:** Strict production and storage control, low drying loss, stable efficacy under recommended conditions.
4. **Water-Soluble:** Belongs to water-soluble vitamin, easy to formulate in aqueous systems, compatible with most water-soluble raw material systems.
5. **Safe & Essential:** Non-toxic at normal dosage, is an essential nutrient for organisms, compliant with international safety standards.

4. Application Fields

1. **Pharmaceutical Industry:** Raw material for folic acid deficiency drugs, anti-anemia drugs, used for treating megaloblastic anemia and preventing fetal neural tube defects.
2. **Food Industry:** Natural food fortifier, added to dairy products, cereals, beverages, baked foods and health foods to supplement folic acid.
3. **Cosmetic Industry:** Added to skin care products, promotes skin cell metabolism and regeneration, improves skin dullness and fine lines.
4. **Feed Industry:** Feed additive for livestock, poultry and aquatic products, promotes animal growth and development, improves reproductive performance and immunity.

5. Usage Methods

1. **Pharmaceutical Use:** Formulated into tablets, capsules, oral liquids and injections according to pharmaceutical preparation processes, dosage following national pharmacopoeia and drug quality standards.



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

2. **Food Fortification:** Dissolve in water or aqueous solution first, add to food production process, addition amount 0.1~0.5 mg/100g (adjust according to national food fortification regulations).
3. **Cosmetic Application:** Dissolve in aqueous phase during preparation, add to lotion, toner, serum and mask, addition amount 0.005~0.05% (w/w), avoid high temperature processing (>80°C) and strong light.
4. **Feed Addition:** Dissolve in water and dilute to make premix, addition amount 0.5~2 mg/kg of feed, mix uniformly with feed raw materials; can also be mixed with other water-soluble vitamins for compound addition.

6. Packaging & Storage

1. **Packaging Specifications:** 100g brown glass bottle, 500g brown glass bottle, 1kg brown glass bottle, 5kg aluminum foil bag, 25kg sealed drum (custom packaging available upon request).
2. **Storage Conditions:** Store in a cool, dark, sealed warehouse, temperature $\leq 25^{\circ}\text{C}$, relative humidity $\leq 60\%$. Avoid direct strong light, high temperature (>100°C) and moisture. Keep away from strong acids and strong bases.
3. **Shelf Life:** 36 months (unopened, under specified storage conditions); the product after opening should be used up within 1 month and sealed tightly after each use.
4. **Transportation:** Non-hazardous goods, transport with sealed light-shielding packaging, avoid collision, strong light exposure, high temperature and rain during transportation. Separate from strong acids and strong bases.

7. Safety & Protection

1. The product is non-toxic at normal dosage, avoid direct contact with eyes in large quantities.
2. Wear nitrile rubber gloves, safety glasses and dust mask during large-scale handling and weighing operations to prevent dust inhalation and eye contact.
3. In case of eye contact, rinse thoroughly with plenty of running water for 5~10 minutes; consult a doctor if irritation persists.
4. If accidentally swallowed in large amounts, rinse mouth with water and seek medical advice if abdominal distension or discomfort occurs.

8. Quality Assurance

1. The product is manufactured in accordance with ISO 9001 and ISO 14001 quality and environmental management system standards, with complete quality control records.
2. Each batch of product is tested by an authoritative third-party laboratory and accompanied by a Certificate of Analysis (COA) to ensure all indicators meet industrial standards.
3. Provide professional technical support including formula design, dosage adjustment, storage and application guidance for different application fields.