

Jiangsu Khonor Chemicals Co., Limited

TECHNICAL DATA SHEET

Product Name: Vitamin K1 Powder 1.0%

Active Ingredient: Vitamin K1 (Phylloquinone)

Product Type: Standardized, microencapsulated powder preparation

CAS No.: 84-80-0 refers to phylloquinone; the complete powder preparation may have a different product-specific identifier.

1. Product Description

Vitamin K1 Powder 1.0% is a standardized powder preparation containing phylloquinone dispersed in a carrier matrix. It is designed to facilitate handling, weighing and blending of Vitamin K1 into premixes and formulated products. The exact carrier composition, assay basis and permitted uses must be confirmed against the manufacturer's current specification.

2. Chemical & Physical Properties

Parameter	Typical description / target
Appearance	Light yellow to yellowish-white free-flowing powder
Odor	Characteristic; no abnormal odor
Vitamin K1 content	1.0% nominal
Dispersibility	Dispersible in water; performance depends on the carrier system
Solubility	Vitamin K1 itself is fat-soluble; the powder preparation may disperse in water but is not necessarily a true solution
Carrier system	Product-specific; commonly uses food-grade carriers/encapsulating agents. Confirm actual formulation.

3. Specifications

Test	Proposed target specification*
Identification	Conforms
Vitamin K1 assay	90.0–110.0% of label claim (equivalent to 0.90–1.10% w/w for a 1.0% grade)
Loss on drying	NMT 5.0%
Particle size	NMT 1.0% retained on 40 mesh (proposed; confirm with supplier)
Lead	NMT 1.0 mg/kg
Arsenic	NMT 1.0 mg/kg
Cadmium	NMT 1.0 mg/kg
Mercury	NMT 0.1 mg/kg
Total plate count	NMT 1,000 CFU/g
Yeast & mould	NMT 100 CFU/g
E. coli	Absent in 10 g
Salmonella	Absent in 25 g

4. Applications

- Vitamin and nutritional premixes, where Vitamin K1 is an approved and appropriate ingredient.
- Fortified food or beverage powder systems, subject to local food regulations and formulation compatibility.
- Animal nutrition premixes and feed formulations, subject to the applicable feed regulations and approved grade.
- Supplement or specialty nutrition formulations, only where the ingredient grade, carrier and intended use meet local regulatory requirements.

5. Advantages

- Standardized low-dose format helps improve weighing accuracy compared with handling neat Vitamin K1.
- Powder form is convenient for dry blending and premix manufacture.
- A suitable carrier/encapsulation system can improve handling and distribution of the active ingredient in a formulation.
- Can be evaluated for customer-specific requirements such as assay, carrier system, particle size and dispersibility.

6. Packaging & Storage

Packaging: 25 kg net per bag as the standard option. Customized packaging can be discussed according to customer requirements and order quantity.

Storage: Keep tightly closed in the original packaging, in a cool, dry and well-ventilated place. Protect from direct sunlight, heat and moisture. Avoid prolonged exposure to air and repeated opening. Follow the actual manufacturer's label and storage instructions.

Shelf life: To be confirmed from the actual manufacturer's specification or label; do not assign a shelf-life period without verification.

7. Regulatory Status

Regulatory status depends on the target country, product grade, carrier composition and intended application. Confirm food/feed/supplement eligibility, additive status, allergen/GMO statements, and required certificates with the actual manufacturer before making regulatory claims.

Internal Verification Checklist

Before releasing this TDS externally, verify: actual Vitamin K1 assay; carrier composition; approved applications; analytical methods; heavy metal and microbiological limits; packaging; shelf life; storage temperature; and the manufacturer's regulatory documents.