



TECHNICAL DATA SHEET

1. Product Identification

Product Name: Phosphatidylcholine PC50

Synonyms: Lecithin (High Phosphatidylcholine Content)

CAS No.: 97281-47-5

EINECS No.: 306-547-4

Molecular Formula: $C_{42}H_{84}NO_8P$ (typical PC structure)

Origin: Natural (Soybean / Sunflower source, depending on grade)

2. Product Description

Phosphatidylcholine PC50 is a refined phospholipid product standardized to contain not less than 50% phosphatidylcholine (PC).

It is widely used for its excellent emulsifying properties, nutritional value, and biological functionality in food, dietary supplements, feed, and pharmaceutical formulations.

PC50 appears as a yellow to light brown powder or granular material with a characteristic odor and good dispersibility in oils and organic solvents.

3. Chemical & Physical Properties

Property	Specification
Appearance	Yellow to light brown powder or granules
Odor	Characteristic
Solubility	Dispersible in water; soluble in oils
Bulk Density	0.30 – 0.60 g/cm ³
pH (10% dispersion)	6.0 – 8.0
Loss on Drying	≤ 5.0%

4. Specifications

Item	Specification
Phosphatidylcholine (PC)	≥ 50.0%
Total Phospholipids	≥ 95.0%
Acetone Insolubles	≥ 95.0%
Peroxide Value	≤ 5.0 meq O ₂ /kg
Acid Value	≤ 30 mg KOH/g
Heavy Metals (as Pb)	≤ 10 ppm
Arsenic (As)	≤ 3 ppm
Lead (Pb)	≤ 2 ppm
Microbial Limits	Complies with food-grade standards

5. Applications

Phosphatidylcholine PC50 is extensively used across multiple industries:

5.1 Food & Beverage

Emulsifier in chocolate, margarine, bakery, and dairy products

Nutritional fortification

Instant food formulations

5.2 Dietary Supplements

Liver health support

Cognitive and memory enhancement products

Choline supplementation

5.3 Feed & Nutrition

Improves fat digestion and nutrient absorption

Enhances animal growth performance

Supports liver function in livestock and aquaculture

5.4 Pharmaceutical & Cosmetic

Liposome preparation

Drug delivery systems

Skin barrier repair formulations

6. Advantages

High and stable phosphatidylcholine content

Natural origin, non-GMO options available

Excellent emulsification and bioavailability

Broad regulatory acceptance
Consistent quality and batch stability

7. Packaging & Storage

Packaging:

20 kg / 25 kg fiber drum with inner polyethylene liner

Storage Conditions:

Store in a cool, dry place

Protect from heat, moisture, and direct sunlight

Shelf Life:

24 months under recommended storage conditions

8. Regulatory Status

Food Grade

Complies with relevant FCC / EU / Feed regulations (depending on application)

Non-hazardous according to GHS

Suitable for use in food, feed, and nutraceutical products subject to local regulations

9. Notes

This Technical Data Sheet is intended for informational purposes only. Specifications may vary slightly depending on application and regulatory requirements.