



## 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:  $C_{42}H_{80}NO_8$  P (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 <sup>3</sup>
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 <sub>2</sub> /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.