



TECHNICAL DATA SHEET

1. Product Identification

Product Name: Phosphatidylserine

Abbreviation: PS

CAS No.: 51446-62-9

Chemical Class: Glycerophospholipid

Grade: Research / Biochemical / Pharmaceutical R&D

Appearance: Off-white to light yellow powder or solid

2. Product Description

Phosphatidylserine (PS) is a naturally occurring phospholipid consisting of a glycerol backbone, two fatty acid chains, a phosphate group, and the amino acid serine as the polar head group. It is a key component of cell membranes and plays an important role in membrane structure, cell signaling, and apoptosis-related processes.

3. Chemical & Physical Properties

Property	Typical Value
Molecular Formula	$C_{42}H_{82}NO_{10}P^*$
Molecular Weight	~747–810 g/mol*
Physical State	Solid / Powder
Polarity	Amphiphilic
Solubility	Soluble in chloroform, methanol; insoluble in water
Lipid Class	Glycerophospholipid
Stability	Stable under dry, low-temperature conditions

* Values may vary depending on fatty acid composition.

4. Typical Specifications

Parameter	Specification
Purity	≥ 98.0%
Moisture Content	≤ 2.0%
Identification	Conforms (TLC / MS)
Residual Solvents	Complies
Heavy Metals	≤ 10 ppm

Detailed analytical results are provided in the corresponding COA.

5. Applications

Biochemical and life science research
Cell membrane and liposome studies
Protein–lipid interaction analysis
Cell signaling and apoptosis research
Pharmaceutical and preclinical R&D
Lipidomics and analytical studies

6. Packaging & Storage

Packaging: Sealed glass bottles or vials
Storage Conditions:
Store at -20 °C or belowProtect from light, moisture, and oxygen
Avoid repeated freeze–thaw cycles
Shelf Life: ≥ 12 months under recommended storage conditions

7. Regulatory Status

Intended Use: For Research Use Only (RUO)
Not approved for food, feed, human, or veterinary use
MSDS, COA, and TDS are available upon request