



Whey Protein Phospholipid Concentrate (WPPC) Standard

Product Definition

Whey Protein Phospholipid Concentrate (WPPC) is a product obtained through the microfiltration of whey, which concentrates whey proteins and whey phospholipids. Whey Protein Phospholipid Concentrate complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

Composition

Parameter	Units of Measure	Limits
Protein	% w/w, dry basis	50.0 minimum
Milkfat	%	12.0 minimum
Total moisture	%	6 maximum
Ash	%	8 maximum

Other Characteristics

Physico-chemical Properties		
Parameter	Units of Measure	Limits
Scorched particles	mg/25g	15.0 maximum
pH	-	5.70 – 7.50

Microbiological Analysis		
Parameter	Units of Measure	Limits
Standard plate count	CFU/g	30,000 maximum
Yeast and mold	CFU/g	100 maximum
Coliforms ¹	CFU/g	10 maximum
<i>Enterobacteriaceae</i> ¹	CFU/g	10 maximum
<i>Salmonella</i>	CFU/sample ²	not detected
<i>Staphylococcus</i> (coagulase positive)	CFU/g	not detected
<i>Bacillus cereus</i>	CFU/g	100 maximum
<i>Clostridia</i> (sulfite-reducing)	CFU/g	100 maximum

- 1 - The food industry is trending toward *Enterobacteriaceae* ("EB") as the most commonly used category of indicator organisms for gauging general process sanitation. For compliance to this Standard, either coliforms and/or EB shall be utilized, at the discretion of the manufacturer.
- 2 - Typical minimum sample size for *Salmonella* testing is 25 g, but the exact sample size and methodology is left to the discretion of the manufacturer.

Permissible Additives

Whey Protein Phospholipid Concentrate may be pH adjusted with an appropriate mineral or organic acid or base. Any pH adjustment agent used for this purpose shall be food grade and shall be used in accordance with U.S. current Good Manufacturing Practices and in accordance with its GRAS status, where applicable.

Methods of Analysis

Parameter	Reference Method
Protein	AOAC 991.20 (N x 6.38)
Milkfat	AOAC 989.05
Moisture	AOAC 925.45
Ash	AOAC 942.05
Scorched particles	ADPI
pH	USDA
Microbiological tests	FDA BAM

Product Labeling

Recommended identification: Whey Protein Phospholipid Concentrate

Alternative identifications: High Fat Whey Protein Concentrate

Typical Applications

Whey Protein Phospholipid Concentrate provides exceptional nutritional value for a wide variety of applications which include: ice cream, frozen yogurt, beverages, salad dressings, process cheese, protein bars, and others.

See the separate ADPI standard for [Infant Formula \(IF\) Grade Whey Protein Phospholipid Concentrate \(WPPC\)](#) for additional requirements in that specific application.

Typical Storage & Shipping

Product should be stored, shipped, and utilized according to the manufacturer's established recommendations. As guidance, product should be stored and shipped in a cool, dry environment with temperature below 80°F and relative humidity below 65%. Stocks should be rotated and utilized in accordance with the manufacturer's established date of expiration or retest.

Typical Packaging

Multiwall kraft bags with polyolefin inner liner, or other suitable closed containers (e.g., totes) are typical.

Revision History

Version	Effective Date	Notes
1.0*	08/10/2015	First officially approved version of this new ingredient standard.
2.0	07/03/2023	Migrated this Standard to the new modernized format as authorized by the ADPI Standards Committee. No previously established test parameters or limits were materially altered by this update. Authorization to use additives for pH adjustment was migrated out of the Product Definition section and into the Permissible Additives section that is provided in the modernized format, following the verbiage previously reviewed by the ADPI Standards Committee. This revision required a footnote to clarify the units of measure for <i>Salmonella</i> . Added a reference to the pending new Infant Grade (IF) Whey Protein Phospholipid Concentrate (WPPC) Standard which is under review for approval by the ADPI Standards Committee at the time of this revision.

* - Assigned *ex post facto*