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CERTIFICATE OF ANALYSIS

Product Name	Palmitoyl Dipeptide-52 Powder	Lot / Batch No.	BLP-PD52-260918-P
INCI Name	Palmitoyl Dipeptide-52	Date of Manufacture	18 September 2026
CAS / MW	63721-19-7 / 450.65 g/mol	Expiration Date	18 September 2028
Sequence	Pal-Pro-Pro	Date of Analysis	02 October 2026
Form	Pure powder, white to off-white	Country of Origin	United States
Intended use	Cosmetic formulation active (hair / skin)	Storage	2-8 °C, dry, sealed, protect from light

ANALYTICAL RESULTS

Test Parameter	Specification	Result	Method	Status
Appearance	White to off-white powder	White powder	Visual	PASS
Identity (HPLC / MS)	Conforms, [M+H] ⁺ 451.6	Confirmed	HPLC / MS	PASS
Assay (HPLC, area %)	≥ 98.0 %	98.7 %	HPLC	PASS
Peptide content (by mass)	≥ 80.0 %	85.4 %	HPLC / calc.	PASS
Water (Karl Fischer)	≤ 5.0 %	1.6 %	KF	PASS
pH (0.1% dispers.)	4.5 – 7.0	5.8	Potentiometric	PASS
Solubility	Lipophilic; dispersible with solubilizer	Complies	Visual	PASS
Total aerobic count	< 100 CFU/g	< 10 CFU/g	USP <61>	PASS
Yeasts and molds	< 10 CFU/g	< 10 CFU/g	USP <61>	PASS
Pathogens	Absent / g	Absent	USP <62>	PASS
Heavy metals (as Pb)	≤ 10 ppm	< 5 ppm	ICP-MS	PASS

USE & HANDLING

Product: Pure Palmitoyl Dipeptide-52 powder (Pal-Pro-Pro). Lipopeptide used in hair care aimed at the appearance of grey strands and for skin conditioning. Not a commercial solution.

How to mix: Pre-wet with a solubilizer (Polysorbate 20 or similar), then add to the oil or water phase below 40 °C. Poorly water-soluble without dispersant.

- Typical finished-product use: 0.001-0.05% of this powder (10-500 ppm).

- Commercial preparations of this peptide are often used at 1-2% of a diluted solution; match target ppm on this pure powder.

Release: Lot BLP-PD52-260918-P complies with internal specification BLP-SPEC-PD52-98. Cosmetic use only. Not for ingestion or injection.

Approved by:	Quality Control Department	Authorized Signature:	_____
Title:	QC Manager, IngredientOS	Date:	02 October 2026

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