Technical Data Sheet (TDS)

Product Identification
Trade Name: LignoBase Warm WS25
INCI: Lignin/Cellulose
CAS: 9005532
EINECS/EC/ELINCS: 2326822

Product Description
LignoBase is a natural multifunctional cosmetic ingredient line from sustainably sourced plants that simplifies the color formulation of skin tones and different brown undertones for multiple cosmetic formulations. Each LignoBase offers a soft skin feeling with a mattifying effect and oil absorbing properties, while their unique polyphenolic molecular structure provides multiple cosmetic functionalities such as skin protection against free radicals, antioxidant activity in the formulation and an SPF boosting effect.
Derived from ethically sourced nonfood competition biomasses, and using our patented transformation process that preserves the natural properties of its lignin of origin, each LignoBase is a natural, safe and sustainable first-of its-kind ingredient.

Origin

Raw Material	100% vegetable
Plant and country of origin	Wheat Straw and Munj Sweetcane Bagasse (*Triticum aestivum L. and Saccharum bengalense*) India
Country of ingredient manufacture	Germany

Composition
LignoBase ™ is constituted of a single substance identified with the **INCI Lignin/cellulose**, defined as a complex of lignin and residual carbohydrates derived from various species plants or trees. It is given the Chemical Class of Biological Polymer and their Derivatives.

INCI	**Concentration**
Lignin/Cellulose	100%

General Specifications

Organoleptic specifications	
Color	Brown
Form	Fine powder
Odor	Neutral to mild woody

Technical specifications		
Moisture content (W/W%)	< 3.5± 0.35	NREL/TP-510-42621
Particle size (µm)	D90 < 25 ± 2.5 D50 < 12 ± 1.2	Laser Diffraction [c]

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pH	3-5	10% aq. susp.
Viscosity (mPa.s)	< 100	10% aq. Susp IKA me-vi Sp.7, 100rpm

[c] Particle sizes were measured on a Beckman-Coulter LS 13 320 laser diffraction analyzer equipped with a Universal Liquid Module and a light source of 750 nm wavelength. The sample chamber was filled with demineralized water, and powder was added until a laser obscuration of 8 - 12 % was reached. The resulting suspension was agitated by an internal pump during sample loading and measurement. Measurements were run for a duration of 270 seconds and performed in duplicate. Fraunhofer optical model was used for data interpretation.

Microbial specifications		
Total Count Bacteria	< 1000 cfu/g	ISO 21149
Total Count Yeast & Mold	< 100 cfu/g	ISO 16212
Escherichia Coli	undetectable	ISO 21150
Candida albicans	undetectable	ISO 18416
Staphylococcus aureus	undetectable	ISO 22718
Pseudomonas aeruginosa	undetectable	ISO 22717

Processing
Physical transformation of crude biorefinery lignins through Lignopure Proprietary particle technology.

Packing
Unbleached kraft paper sacks with LDPE in-liner / Heat sealed / 100 g / 5 kg/ 15 kg.

Storage conditions
Store in original sealed packaging protected from direct light exposure, moisture, and heat. Recommended room temperature (15 to 25 °C).

Shelf life
At least 24 months if unopened and kept under proper storage conditions.

Handling and Safety
Proper handling as indicated in the MSDS to avoid risk of dust explosion.

Certifications
COSMOS Approved - COMOS Standard V4

Statement of Exemption from the REACH Regulation
Lignopure GmbH, classified as a manufacturer, here by declares that its cosmetic ingredient LignoBase ™ is exempted from registration, evaluation, and downstream user obligations of the Regulation (EC) No 1907/2006 (REACH). As specified in the Regulation, [Article 2 (7)(b) and Annex V (8)], substances which occur in nature, and are not chemically modified or otherwise classified as dangerous according to Regulation (EC) No 1272/ 2008 are exempted from Titles II, V, and VI of the Regulation.

HS Code
3804.00