GREEN AGROCHEM INDUSTRIAL CHEMICALS

TECHNICAL DATA SHEET

Industrial Chemicals Division
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TECHNICAL DATA SHEET

GAC-DP DISPERSANT

Lignosulfonate Dispersant for Dye Powder, Pigment Grinding and Ink Formulation

Product Code	GAC-DP DISPERSANT	**Product Type**	Organic Dispersant / Binder
CAS No.	Mixture / Not applicable	**Physical Form**	Brown powder
Version	V1.0 | August 2026	**Primary Markets**	Textile Dyeing - Pigment Grinding - Ink & Coating Formulation

PRIMARY ROLE	PERFORMANCE FOCUS	INDUSTRIAL FIT	SUPPLY SUPPORT
Dye/pigment particle dispersant	**Particle dispersion stability & grinding aid**	**Dye powder, pigment concentrates, printing inks**	**TDS, SDS, COA and samples**

1. Product Overview

GAC-DP DISPERSANT is a high-purity sodium lignosulfonate dispersant grade used to disperse and stabilize dye and pigment particles during grinding, standardization and formulation into powders, granules and liquid concentrates. Rich in sulfonic and carboxylic functional groups, it adsorbs onto pigment/dye particle surfaces to prevent re-agglomeration, supporting consistent color strength and shade reproducibility.

2. Key Performance Functions

- **Particle-surface adsorption:** anionic sulfonic/carboxylic groups adsorb onto dye and pigment particle surfaces, creating electrostatic repulsion that resists re-agglomeration.
- **Grinding aid:** reduces particle-particle friction during wet or dry grinding, supporting finer, more uniform particle size distribution.
- **Dispersion stability:** maintains stable, non-settling dye/pigment dispersions in powder-to-liquid letdown and ink formulation.
- **Standardization support:** assists in blending dye/pigment lots to consistent strength and shade by improving dispersion uniformity.
- **Compatibility:** compatible with common anionic and nonionic surfactants and thickeners used in dye and pigment formulation.

3. Main Specifications

PARAMETER	SPECIFICATION
Appearance	**Brown powder**
Dry Matter	**95% min**
Water-insoluble Matter	**0.5% max**
Calcium & Magnesium	**0.5% max**
Lignosulphonate Content	**70% min (dry basis)**
Moisture	**5% max**

Note: Core material specification shared with Green Agrochem's GAC-NaLS-Dispersant-P (Sodium Lignosulfonate Dispersant Grade) reference product (liquid form GAC-NaLS-Dispersant-L also available, 45% min dry matter). Final agreed specification and COA shall prevail.

4. Recommended Application Areas

APPLICATION AREA	TYPICAL USE	CUSTOMER VALUE
Textile Dye Powder Formulation	Dispersant for disperse, reactive and vat dye powder standardization.	Improves dye powder wetting/re-dispersion and dyeing uniformity on fabric.
Pigment Grinding	Grinding aid and dispersant for organic and inorganic pigment concentrates.	Supports finer particle size and higher, more consistent color strength.
Printing Ink Formulation	Dispersant for pigment dispersion in water-based printing ink systems.	Improves ink viscosity stability and print color consistency.
Agrochemical Dye/Colorant Carriers	Dispersant for colorant components in agrochemical formulation (seed treatment dyes, etc.).	Supports uniform colorant distribution in the finished formulation.

5. Suggested Usage Guidance

APPLICATION STEP	TYPICAL STARTING DOSAGE / USE	TECHNICAL NOTE
Dosage	2%-8% by weight of dye/pigment solids, depending on particle fineness and target dispersion stability.	Start at 3%-5% for initial trials; fine, high-surface-area pigments may need the upper end.
Addition point	Add during wet grinding/milling stage, or dry-blend with dye/pigment powder before standardization.	Pre-dissolving in water before addition to wet-mill systems improves uniformity.

Grinding	Compatible with ball mill, bead mill and other standard pigment/dye grinding equipment.	Monitor particle size (laser diffraction or Hegman gauge) to confirm target fineness reached.
Stability check	Evaluate dispersion settling/viscosity stability over storage-relevant timeframes.	Adjust dosage if sedimentation or viscosity drift is observed.
Shade/strength standardization	Use consistent dosage across production lots to support shade and color-strength reproducibility.	Document dosage per dye/pigment type as part of standard operating procedure.

> Dosage and grinding parameters should be verified by laboratory trial for each specific dye or pigment chemistry, as optimal levels vary with particle surface chemistry and target application (textile, ink, coating).

6. Packaging, Storage & Handling

Packaging

- 25 kg woven bags with liner; 500 kg or 600 kg jumbo bag; IBC or flexitank; or per customer requirement.
- Palletized, neutral or customized export packing can be discussed.

Storage & Handling

- Store in a cool, dry, well-ventilated area.
- Keep away from moisture, rain, direct sunlight and strong oxidizing materials.
- Recommended shelf life: 24 months under original sealed packaging.

7. Documents & Technical Support

- TDS, SDS/MSDS, COA and agreed specification support.
- Sample arrangement, packing information and export document support.
- Application discussion and dosage/formulation screening support for this industry.

8. Inquiry Information

For quotation, sample request or technical document support

Please provide target dosage, formulation/process details, required quantity, destination port, packaging preference and target technical requirement.
Website: www.lignincorp.com | Email: info@greenagrochem.com

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