

TECHNICAL DATA SHEET

Sodium Lignosulfonate Binder Grade

Industrial Lignin-Based Binder for Granulation, Briquetting, Ceramics and Construction Materials

Product Code	GAC-NaLS-Binder	Product Type	Lignosulfonate / Binder / Dispersant
CAS No.	8061-51-6	Physical Form	Yellow-brown water-soluble powder
Version	V2.1 May 2026	Primary Markets	Mining - Ceramics - Construction - Powder Processing

Primary Role Organic binder for fine particles	Performance Focus Strength, dust reduction, process stability	Industrial Fit Briquetting, granulation, ceramics, construction	Supply Support TDS, SDS, COA, samples and packing data
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1. Product Overview

Sodium Lignosulfonate Binder Grade is a water-soluble lignin-based polymer supplied as a yellow-brown powder. It contains sulfonic and carboxylic functional groups and performs as an organic binder, dispersant and processing aid in industrial powder systems.

This grade is optimized for industrial applications where particle binding, granule strength, dust reduction and formulation workability are required, especially mineral briquetting, powder granulation, ceramics, refractories, construction materials and selected fertilizer granulation systems.

2. Key Performance Functions

- Organic Binder: improves cohesion of fine particles during briquetting, pelletizing, molding and granulation.
- Dust Reduction: helps reduce fine powder loss during production, handling, transport and storage.
- Dispersing Support: supports wetting and dispersion of inorganic particles in aqueous systems.
- Process Lubrication: improves moldability and extrusion performance in ceramic, refractory and mineral-based systems.
- Bio-Based Additive: lignin-derived functional additive for industrial formulation systems.
- Export-Oriented Supply: available with TDS, SDS, COA, sample support and packing information.

3. Main Specifications

Parameter	Specification
Appearance	Yellow-brown powder
Dry Matter	>= 95%
Moisture	<= 7.0%
Water-Insoluble Matter	<= 1.5%
Lignosulfonate Content	>= 55%
Water Reducing Capacity	>= 8.0%
Sulphate Content	2.0% - 5.0%
Calcium & Magnesium	<= 0.5%
Brix	>= 50%

Note: The above values are typical technical data for reference. Final agreed specification and COA shall prevail.

4. Recommended Application Areas

Application Area	Typical Use	Customer Value
Mining & Mineral Briquetting	Binder for iron ore fines, coal powder, coke fines, lead/zinc dust and mineral particles.	Improves agglomeration, green strength, handling stability and dust reduction.
Industrial Powder Granulation	Binder and processing aid for powder-to-granule systems and bulk material handling.	Supports particle cohesion, lower dust and stable granule formation.
Ceramics & Refractories	Binder and plasticizer for ceramic bodies, refractory mixes, tiles and mineral aggregates.	Improves moldability, lubrication, dimensional stability and dry strength.
Construction Materials	Organic binder and auxiliary dispersant for selected cementitious or mineral systems.	Supports workability, particle wetting and process consistency.
Fertilizer Granulation	Optional use in NPK, organic fertilizer or mineral fertilizer granulation.	Improves granule strength, anti-dust performance and storage handling.
Feed Pelletting	Only when feed-grade compliance and local regulatory requirements are confirmed.	Improves pellet durability and reduces dust. Separate feed-grade documents are recommended.

5. Suggested Usage Guidance

Application	Typical Starting Dosage	Technical Note
Briquetting / pelletizing	1.0% - 5.0%	Depends on powder type, particle size, moisture and target strength.
Ceramic / refractory mixtures	0.1% - 1.0%	Adjust by slurry viscosity, molding method and dry strength target.
Construction / mineral binders	0.2% - 1.0%	Lab test is recommended before commercial formulation.
Fertilizer granulation	0.5% - 3.0%	Confirm compatibility with nutrients, fillers and granulation process.

Dosage should be verified by laboratory or pilot testing. Performance depends on raw material type, moisture, particle size distribution, mixing time, compaction pressure, drying conditions and final strength requirements.

6. Packaging, Storage & Handling

Packaging <ul style="list-style-type: none"> • 20 kg or 25 kg woven bags / kraft bags with inner PE liner. • 500 kg, 600 kg or 1,000 kg jumbo bags available on request. • Palletized, neutral or customized packing can be discussed. 	Storage & Handling <ul style="list-style-type: none"> • Store in a cool, dry and ventilated warehouse. • Keep away from moisture, rain, direct sunlight and strong oxidizing materials. • Recommended shelf life: 12 months under original sealed packaging.
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Please refer to the corresponding Safety Data Sheet before use. Product suitability for food, feed or regulated applications must be confirmed separately according to local laws and customer requirements.

7. Documents & Technical Support

- TDS, SDS/MSDS, COA and agreed specification support.
- Sample arrangement and product grade recommendation.
- Packing photos, loading information and export document support.
- Application discussion for briquetting, granulation, ceramics and construction systems.

8. Inquiry Information

For quotation or sample request

Please provide application, required quantity, destination port, packaging preference and target technical requirement.

Website: www.lignincorp.com | Email: info@greenagrochem.com

Disclaimer

The information in this Technical Data Sheet is provided for reference and general guidance only. It does not constitute a legally binding specification or warranty. Customers should conduct their own tests to determine product suitability for their intended application. Final commercial specification shall be subject to agreed contract, product grade and COA.