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TECHNICAL DATA SHEET
Industrial Chemicals Division
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TECHNICAL DATA SHEET

Calcium Lignosulfonate Dust Control Grade

Bio-Based Dust Suppression Binder for Unpaved Roads, Industrial Yards and Bulk Material Handling

Product Code	GAC-CaLS-DC	**Product Type**	Calcium Lignosulfonate / Dust Control Binder / Dispersant
CAS No.	8061-52-7	**Physical Form**	Yellow-brown water-soluble powder
Version	V2.1 | May 2026	**Primary Markets**	Road Dust Control - Mining Roads - Industrial Yards - Bulk Solids

Primary Role	Performance Focus	Best Fit	Supply Support
Dust suppression binder	Surface crust and particle binding	Roads, yards, mining, stockpiles	TDS, SDS, COA and samples

1. Product Overview

Calcium Lignosulfonate Dust Control Grade is a water-soluble lignin-based polymer used for dust suppression, surface binding and particle stabilization. When applied with water, it forms a naturally tacky binder that captures dust particles and improves surface cohesion.

This grade is suitable for unpaved roads, mining haul roads, industrial yards, stockpiles and dusty industrial processes where a chloride-free, bio-based dust-control alternative is preferred.

2. Key Performance Functions

- Dust Suppression: binds loose surface particles and reduces airborne dust.
- Surface Stabilization: forms a tacky film and later a durable surface crust after drying.
- Industrial Binding: can assist pellet or compressed material binding in bulk-solid processes.
- Chloride-Free Alternative: offers a more environmentally friendly option compared with chloride-based treatments.
- Broad Soil Compatibility: useful across many soil and aggregate types after site testing.

3. Main Specifications

Parameter	Specification
Appearance	Yellow-brown powder
Dry Matter	>= 95%
Water-Insoluble Matter	<= 1.0%
Water Reducing Capacity	>= 10%
Sulphate Content	2% max
Lignosulfonate Content	>= 55%
Moisture	<= 5.0%

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
Unpaved Road Dust Control	Topical treatment for rural roads, mining haul roads and industrial roads.	Reduces dust generation and improves surface binding.
Industrial Yards	Dust suppression for yards, storage areas and material handling zones.	Improves working environment and reduces powder loss.
Mining & Bulk Materials	Binder for dusty minerals, powders and granular solids.	Supports particle cohesion and easier handling.
Agricultural / Sensitive Areas	Used where lower chloride exposure is desired after site validation.	Supports dust control near water, trees, orchards or agricultural land.
General Dispersant / Binder	Can assist dispersion or binding in selected industrial formulations.	Provides multi-functional lignosulfonate performance.

5. Suggested Usage Guidance

Application	Typical Starting Dosage / Use	Technical Note
Topical application	0.3 - 0.5 gallons prepared solution per square yard	Adjust by soil type, traffic volume, climate and dust level.
Road treatment	Dilute in water before spraying	Apply evenly; repeat after heavy traffic or rainfall as needed.
Industrial yards	Site-specific rate required	Optimize concentration by surface material and operating conditions.
Bulk material binding	Pilot trial required	Confirm dosage by particle size, moisture and target strength.

Dosage and application method should be verified by laboratory or pilot testing. Performance depends on formulation type, raw materials, process conditions, temperature, moisture, mixing time and target technical results.

6. Packaging, Storage & Handling

Packaging

- 25 kg woven bags / kraft bags with inner PE liner.
- 500 kg or 600 kg jumbo bags available on request.
- Palletized, neutral or customized packing can be discussed.

Storage & Handling

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

Please refer to the corresponding Safety Data Sheet before use. Product suitability for 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 and grade selection support for industrial buyers.

8. Inquiry Information

For quotation, sample request or technical document support

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

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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.