

TECHNICAL DATA SHEET

Chrome Free Lignosulfonate

Chrome-free drilling fluid thinner for rheology control and fluid loss support

Product Code	GAC-IC-CFLS	Product Type	Chrome-free lignosulfonate / drilling mud thinner / fluid loss control additive
CAS No.	Mixture / not assigned	Physical Form	Brown water-soluble powder
Version	V1.0 May 2026	Primary Markets	Oilfield Drilling - Chrome-Free Mud Systems - Water-Based Mud - Fluid Loss Control

Primary Role Drilling fluid thinner	Performance Focus Rheology and filtration control	Best Fit Water-based drilling mud systems	Supply Support TDS, MSDS, COA and samples
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1. Product Overview

Chrome Free Lignosulfonate is a modified lignosulfonate additive used as a thinner, deflocculant and fluid loss control aid in water-based drilling fluids. It is designed for customers seeking a chromium-free alternative to traditional chrome lignosulfonate thinners.

The product supports viscosity reduction, filtration control and compatibility with common mud additives in fresh-water and salt-water systems after laboratory or pilot validation.

2. Key Performance Functions

- **Chrome-Free Alternative:** Designed without intentionally added chromium for drilling fluid programs requiring chrome-free additives.
- **Thinning Performance:** Helps reduce apparent viscosity and gel strength in water-based mud systems.
- **Fluid Loss Support:** Supports filtration control when used with other drilling fluid additives.
- **Salt / Temperature Tolerance:** Suitable for fresh-water and salt-water mud systems after site validation.
- **Formulation Compatibility:** Can be used with bentonite, weighting agents and common mud chemicals subject to testing.

3. Main Specifications

Parameter	Specification
Appearance	Brown powder
Moisture	<= 8.5%
Water-Insoluble Matter	<= 2.5%
pH	Typical 7.0 - 10.0
Lignosulfonate Active Content	Main component; grade dependent
Chromium	No chromium intentionally added; COA / agreed specification shall prevail
Thermal Performance	Designed for elevated-temperature water-based mud systems

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

4. Drilling Mud Performance Reference

Test / System	Typical Reference Result
Fresh-water mud	Typical dosage around 1.0% as a starting point
Salt-water mud	Typical dosage around 2.0% as a starting point
Rheology control	Reduces viscosity and supports deflocculation in water-based mud systems
Fluid loss support	Helps control filtration in formulated drilling fluids

5. Recommended Application Areas

Application Area	Typical Use	Customer Value
Chrome-Free Drilling Fluid	Alternative thinner for systems where chrome-containing products are not preferred.	Supports environmental and procurement requirements.
Fresh-Water Mud Salt-Water Mud	Rheology control and viscosity reduction. Mud thinning and filtration support after formulation validation.	Improves drilling fluid handling. Supports operation in saline systems.
High-Temperature Mud Systems	Use after hot-roll and pilot testing.	Helps maintain mud performance under challenging conditions.

6. Suggested Usage Guidance

Application	Typical Starting Dosage / Use	Technical Note
Fresh-water mud	Approx. 1.0% starting dosage	Adjust by mud composition, solids content and target viscosity.
Salt-water mud Chrome-free replacement	Approx. 2.0% starting dosage Evaluate side-by-side with existing thinner	Pilot test required before field use. Confirm rheology, filtration and cost-in-use.

Dosage and application method should be verified by laboratory or pilot testing. Performance depends on mud type, solids content, salinity, pH, temperature, contamination level, mixing time and target technical results.

7. Packaging, Storage & Handling

- **Packaging:** 25 kg woven bags / kraft bags with inner PE liner; 500 kg, 600 kg or 1,000 kg jumbo bags available on request.
- **Storage:** Store in a cool, dry and ventilated warehouse. Keep away from moisture, rain, direct sunlight and strong oxidizing materials.

- **Shelf Life:** Recommended 12 months under original sealed packaging. Confirm suitability before use after extended storage.
- **Handling:** Avoid dust generation. Use suitable eye protection, gloves and respiratory protection where dust may form.

8. 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.

9. Inquiry Information

For quotation, sample request or technical document support, 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.