

MATERIAL SAFETY DATA SHEET

Chrome Lignosulfonate

16-section safety data sheet for GAC-CrLS (GHS format)

Product Code	GAC-CrLS	CAS No.	Not assigned (chromium-complex lignosulfonate formulation — confirm Cr oxidation state with supplier COA)
Product Grade	Chrome Lignosulfonate	Physical Form	Powder
Supplier	Green Agrochem	Email	info@greenagrochem.com

SECTION 1: IDENTIFICATION

Product Identifier	Chrome Lignosulfonate (GAC-CrLS)
Synonyms	Chromium lignosulfonate; chrome-complexed lignosulfonate drilling mud thinner (CLS)
Recommended Use	Thinner and fluid-loss control agent for deep-well and high-temperature drilling mud systems
Supplier	Green Agrochem www.greenagrochem.com info@greenagrochem.com
Source Document	Chrome Lignosulfonate Technical Data Sheet

SECTION 2: HAZARD(S) IDENTIFICATION

GHS Classification	Contains a chromium complex (Total Cr 3.6–4.2%). The source TDS describes the product as "hazardless" under normal handling conditions and stable at normal temperature/pressure; however, chromium-containing materials warrant careful handling and the specific oxidation state (trivalent vs. hexavalent) of the chromium complex should be confirmed with the supplier's Certificate of Analysis, as this affects regulatory classification.
Signal Word	Not applicable based on available information — confirm classification against destination-country regulations given chromium content
Potential Hazards	Weakly acidic in solution; may cause irritation on prolonged skin or eye contact. Dust may cause mechanical irritation to eyes, skin, nose or throat. Avoid ingestion given chromium content
Precautionary Statements	Avoid breathing dust. Wear full protective clothing, impervious gloves and safety glasses when handling. Avoid package breakage during transport/storage

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Main Component	Lignosulfonate complexed with chromium (Total Cr 3.6–4.2%), formulated as a drilling-mud thinner
Grade Basis	Chrome Lignosulfonate (GAC-CrLS): Moisture 8.5% max; Insoluble in Water 2.5% max; CaSO ₄ 3.0%; Total Cr 3.6 – 4.2%; Cr Complex 75.0% max
Trade Secret Statement	Exact batch-level composition and process parameters are proprietary and are controlled by sales contract and the accompanying batch Certificate of Analysis (COA)

SECTION 4: FIRST-AID MEASURES

Inhalation	Remove the affected person to fresh air. Support breathing as needed. Seek medical attention if irritation or breathing discomfort persists
Skin Contact	Remove contaminated clothing. Flush skin with water, then wash with soap and water. Seek medical attention if irritation persists
Eye Contact	Flush immediately with clean water for at least 10 minutes. Seek medical attention if irritation persists
Ingestion	Rinse mouth with water. Seek medical attention or contact a poison control center if discomfort occurs

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Water spray, foam, dry chemical powder or carbon dioxide
Specific Hazards	May be combustible at high temperature; not self-igniting under normal conditions. Combustion may generate carbon oxides, sulfur oxides and irritating fumes
Protective Equipment	Firefighters should wear self-contained breathing apparatus and full protective gear in enclosed or poorly ventilated areas

SECTION 6: ACCIDENTAL RELEASE MEASURES	
Personal Precautions	Avoid dust/mist generation and inhalation; avoid skin and eye contact; wear suitable protective equipment
Environmental Precautions	Prevent large quantities from entering drains, waterways or soil
Clean-up Methods	Collect material with a shovel into a suitable waste container; flush residual contamination with water in accordance with local sanitary/wastewater regulations
SECTION 7: HANDLING AND STORAGE	
Handling	Use with adequate ventilation. Avoid generating dust/mist. Avoid prolonged skin and eye contact. Clean up spills immediately. This product is weakly acidic/alkaline in solution — avoid package breakage during handling
Storage	Store in a cool, dry, well-ventilated area, in sealed original packaging, away from children, food/feed products and heat sources. Protect from freezing and moisture ingress
Incompatibilities	Keep away from strong oxidizing agents, strong acids and strong bases, and excessive heat
SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION	
Engineering Controls	Provide local exhaust or general ventilation where dust/mist may be generated
Respiratory Protection	Use an approved particulate respirator or dust mask if airborne dust/mist is present
Eye / Skin Protection	Safety glasses/goggles and impervious protective gloves recommended during handling; wear overalls for prolonged handling
Hygiene Measures	Wash hands after handling and before eating, drinking or smoking; wash contaminated clothing before reuse
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Moisture	8.5% max
Insoluble in Water	2.5% max
CaSO ₄	3.0%
Total Cr	3.6 – 4.2%
Cr Complex	75.0% max
Mud Performance — Fresh Water, Normal Temp. (viscosity / reduction)	≤30 mPa·s / ≥85%
Mud Performance — Fresh Water, High Temp. (viscosity / reduction)	≤40 mPa·s / ≥60%
Mud Performance — Salt Water, Normal Temp. (viscosity / reduction)	≤30 mPa·s / ≥65%
Mud Performance — Salt Water, High Temp. (viscosity / reduction)	≤45 mPa·s / ≥60%
Flash Point	Not available; not expected to be readily flammable under normal handling
SECTION 10: STABILITY AND REACTIVITY	
Reactivity	No dangerous reaction known under normal handling and storage conditions
Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions
Conditions to Avoid	Excessive heat, moisture ingress, and prolonged exposure to strong acids or bases
Incompatible Materials	Strong oxidizing agents, strong acids, strong bases
Hazardous Decomposition Products	Carbon oxides, sulfur oxides and irritating fumes under fire conditions
SECTION 11: TOXICOLOGICAL INFORMATION	
Likely Routes of Exposure	Inhalation of dust/mist, eye contact, skin contact, accidental ingestion
Acute Effects	May cause mild irritation to eyes and skin; no specific acute toxicity effects documented for this formulation in available data
Chronic Effects	Chromium compounds may present chronic hazards depending on oxidation state (trivalent Cr(III) is generally low-hazard; hexavalent Cr(VI) is a recognized carcinogen) — confirm oxidation state with supplier before use in sensitive applications
Carcinogenicity	The lignosulfonate base component is not listed as a carcinogen; chromium classification depends on oxidation state and must be verified against the batch Certificate of Analysis and applicable regulations

SECTION 12: ECOLOGICAL INFORMATION	
Ecotoxicity	No product-specific aquatic toxicity data available.
Persistence and Degradability	Lignosulfonate-based component is derived from natural lignin and is expected to be inherently biodegradable
Bioaccumulative Potential	Not expected to bioaccumulate given high water solubility and polymeric/ionic nature
Mobility in Soil	Mobile in soil profile due to high water solubility
SECTION 13: DISPOSAL CONSIDERATIONS	
Waste Treatment	Dispose of unused material and contaminated packaging according to local, regional and national regulations
Packaging	Empty packaging should be handled to minimize residual dust/residue and disposed of or recycled according to local requirements
Recommendation	Do not discharge large quantities into drains or natural waterways
SECTION 14: TRANSPORT INFORMATION	
UN Number	Not regulated as a dangerous good based on available information
UN Proper Shipping Name	Not applicable
Transport Hazard Class	Not applicable
Packing Group	Not applicable
Special Precautions	Protect from moisture and package damage during transport; avoid dust release if bags are broken
SECTION 15: REGULATORY INFORMATION	
Regulatory Status	Prepared for industrial reference. Final classification, labeling and transport compliance must be verified against destination-country regulations and customer requirements — chromium content requires additional verification of destination-country hazardous-substance and transport regulations
Inventory / Compliance	Users and importers are responsible for confirming chemical inventory listing, registration and use restrictions in the destination market
Hazard Communication	Use the current 16-section SDS/MSDS format and provide worker training according to applicable regulations
SECTION 16: OTHER INFORMATION	
Revision No.	2.0
Prepared By	Green Agrochem — Technical Documentation
Disclaimer	The information in this Safety Data Sheet is based on data believed to be accurate at the time of preparation. Green Agrochem makes no warranty, express or implied, regarding its accuracy or completeness, and assumes no liability for any damage resulting from its use. Users should conduct their own evaluation to determine suitability for a specific purpose, and must verify regulatory compliance before use, sale or shipment