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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Hydroxypropyl Methylcellulose for Drilling Fluids (HPMC)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Hydroxypropyl Methylcellulose for Drilling Fluids (HPMC)
Synonyms	HPMC; Hypromellose; Hydroxypropyl methyl cellulose; Methyl hydroxypropyl cellulose; Cellulose, 2-hydroxypropyl methyl ether
CAS No.	9004-65-3
EC No.	618-389-6
Molecular formula	Variable substituted cellulose ether polymer; no single fixed molecular formula
Molecular weight	Variable (polydisperse cellulose ether polymer)
Relevant identified uses	Viscosifier and rheology-control polymer for water-based drilling-fluid formulations; Fluid-loss-control additive candidate, subject to formulation and downhole-condition testing; Suspension and wellbore-stability support in suitably designed drilling-fluid systems
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
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SECTION 2: Hazards identification

GHS Classification	Not classified as a hazardous substance or mixture according to Regulation (EC) No 1272/2008 in the cited hypromellose SDS. Combustible dust is retained as a workplace process-safety warning, not as an invented GHS classification.
Pictogram(s)	None
Signal word	None
Hazard statement(s)	None
Precautionary statement(s)	None
Other hazards	No other hazards were identified in the reviewed sources.

SECTION 3: Composition/information on ingredients

Component	Hydroxypropyl Methylcellulose for Drilling Fluids (HPMC)
CAS No.	9004-65-3
EC No.	618-389-6

SECTION 3: Composition/information on ingredients

Classification	Not classified as a hazardous substance or mixture according to Regulation (EC) No 1272/2008 in the cited hypromellose SDS. Combustible dust is retained as a workplace process-safety warning, not as an invented GHS classification.
Concentration	99% supplier-declared; not a fixed small-molecule assay

SECTION 4: First-aid measures

If inhaled	Move to fresh air after dust exposure. Obtain medical advice if coughing, breathing difficulty or other symptoms persist.
In case of skin contact	Wash with soap and water. Remove contaminated clothing and obtain advice if irritation develops.
In case of eye contact	Rinse carefully with water for several minutes, removing contact lenses if present and easy to do. Obtain medical advice if mechanical irritation persists.
If swallowed	Rinse mouth and do not induce vomiting. Obtain medical advice if a large quantity was swallowed or if symptoms occur.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Avoid a solid water jet because it may scatter the fire. Wear full protective clothing and self-contained breathing apparatus when necessary.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Combustible powder and dust clouds may burn or explode when dispersed in air and exposed to an ignition source. Combustion may produce carbon oxides and irritating smoke.
Advice for firefighters	Firefighters should wear self-contained breathing apparatus and protective clothing; avoid high-pressure tactics that unnecessarily disperse burning dust.

SECTION 6: Accidental release measures

Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Remove ignition sources and avoid generating dust. Use suitable eye, skin and respiratory protection. Sweep gently or use a suitable dust-collection/HEPA vacuum system, place in a closed labelled container, and do not use compressed air. Prevent large releases to drains and waterways.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid breathing dust and minimise dust generation and accumulation. Keep away from heat, sparks and open flames; use appropriate bonding, grounding and dust-control measures for bulk transfers. Wash after handling and keep away from food and drink.
Conditions for safe storage, including incompatibilities	Keep the bag tightly closed in a cool, dry, well-ventilated place. Protect from moisture, heat and ignition sources; prevent dust accumulation and use good housekeeping to minimise combustible-dust hazards.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	The reviewed manufacturer SDS identifies no region-specific occupational exposure limit for this product; it recommends local exhaust ventilation and a particulate respirator when dust exposure cannot otherwise be controlled.
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide local exhaust ventilation and dust collection for powder handling, with housekeeping and equipment suitable for combustible-dust risk. Provide eyewash facilities where dust exposure is likely.
Eye/face protection	Wear safety glasses, protective gloves and work clothing. Use an approved particulate respirator where exposure assessment or inadequate ventilation requires it.
Skin and body protection	Wear safety glasses, protective gloves and work clothing. Use an approved particulate respirator where exposure assessment or inadequate ventilation requires it.
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	White powder
Colour	White to off-white powder.
Odour	Odourless in the Aadhunik Industries and American Molecules SDSs; Dow CELLOSIZE Texture 40-0101 is described as having a mild odour.
Melting point / freezing point	No data available
Boiling point / boiling range	No data available
Flammability	Sigma-Aldrich assigns storage class 11 (combustible solids); this is a storage designation, not a measured burning-rate result.
Explosion / flammability limits	Dow METHOCEL SDS information warns that the powder may form an explosive dust-air mixture; this is a qualitative dust-explosion hazard statement rather than a numerical LEL/UEL.
Flash point	Not applicable for HPMC powder (Sigma-Aldrich product 423203 and Dow/Univar product data).
Auto-ignition temperature	170 °C (338 °F) for Dow CELLOSIZE Texture 40-0101; this is a product-specific value reported on the Univar-hosted manufacturer SDS page.
Decomposition temperature	No data available
pH	5–8; Dow/Univar specifies this range for an aqueous solution, while the reviewed manufacturer SDS does not state the concentration.
Viscosity	45,000–100,000 mPa·s in the selected public table; concentration, temperature, spindle and shear conditions are not stated and must be confirmed
Solubility	No numerical solubility is stated in the selected drilling-grade table; use a confirmed grade-specific dispersion procedure for aqueous formulations
Partition coefficient n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	Relative density 1.3 (water = 1) for Dow CELLOSIZE Texture 40-0101.

SECTION 9: Physical and chemical properties	
Relative vapour density	No data available
Particle characteristics	White powder
Moisture	≤5%
Ash	≤5%
Combustibility	Combustible powder; dispersed dust may form an explosive dust–air mixture
General sds section 9	Mostly No data available
Candidate gel temperature	No data available

SECTION 10: Stability and reactivity	
Reactivity	May react vigorously with bleaching powder, fluorine and nitric acid (Aadhunik Industries SDS).
Chemical stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions	Hazardous polymerization will not occur. Fine dust dispersed in air can present a dust-explosion hazard when sufficient concentration and an ignition source are present.
Conditions to avoid	Moisture, heat, ignition sources, static discharge and formation or accumulation of combustible dust clouds.
Incompatible materials	Avoid strong oxidising agents and other incompatibles identified by the actual supplied SDS.
Hazardous decomposition products	Oxides of carbon are reported as combustion products in the manufacturer SDS.

SECTION 11: Toxicological information	
Classification	The cited SDS does not classify hypromellose as acutely toxic, sensitising, carcinogenic, mutagenic or toxic to reproduction.
Local effects	Dust may cause mechanical eye and respiratory irritation even though the substance is not GHS-classified.
Quantitative data	No product-specific numerical toxicological endpoint is asserted for the selected drilling-grade product.

SECTION 12: Ecological information	
Classification	Not classified as environmentally hazardous in the cited hypromellose SDS and not listed as an IMDG marine pollutant.
Release control	Avoid bulk discharge to drains, soil and surface water; collect spilled powder and dispose of residues responsibly.

SECTION 13: Disposal considerations	
Product disposal methods	Dispose of product residues and contaminated packaging in accordance with local regulations. Prevent dust generation during transfer and do not discharge bulk powder or concentrated slurries to drains.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	Not assigned in the cited public SDS
Special precautions for user	Not regulated as dangerous goods under ADR/RID, IMDG and IATA in the cited public SDS. Keep containers closed and secured during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	identity: HPMC / hypromellose, CAS 9004-65-3, EC 618-389-6; variable substituted cellulose ether polymer; grade_limit: Industrial/oil-drilling reference grade only. This record makes no food, pharmaceutical, ophthalmic or USP/FCC compliance claim.; customs: HS 39123900 / 3912390000 is indicative and must be confirmed with destination customs and the actual cellulose-ether composition.

SECTION 16: Other information

Full text of H-Statements	None
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: Industrial / oil-drilling grade Hydroxypropyl Methylcellulose (HPMC) specification and packaging: https://www.alibaba.com/product-detail/HPMC-Methocel-E15-Premium-lv-Hydroxypropyl_60526750470.html | Safety Data Sheet: Hypromellose / Hydroxypropyl Methylcellulose: https://aadhunikindustries.com/hypromelloseSDS-MSDS.html | WHMIS information sheet: Hydroxypropyl methylcellulose and combustible-dust precautions: https://reptox.cnesst.gouv.qc.ca/en/Pages/information-sheet-whmis.aspx?langue=a&no_produit=270306 | (Hydroxypropyl)methyl cellulose, product 423203 — properties and safety information: https://www.sigmaaldrich.com/US/en/product/aldrich/423203 | CELLOSIZE Texture 40-0101 Hydroxypropyl Methylcellulose — product details and Dow SDS: https://www.univarsolutions.com/cellosize-texture-40-0101-16038602 | Hypromellose or Hydroxypropyl Methylcellulose — Safety Data Sheet: https://ammol.org/hypromellose-safetydatasheet.html | METHOCEL E4M Premium — Dow SDS information: https://www.americanpharmawholesale.com/store.php/AmericanPharmaWholesale/pd9717066/methocel-e4m-premium-hypromellose-2910-usp-4000-cps-125kg-by
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.