

TECHNICAL LIGNOSULPHONATES



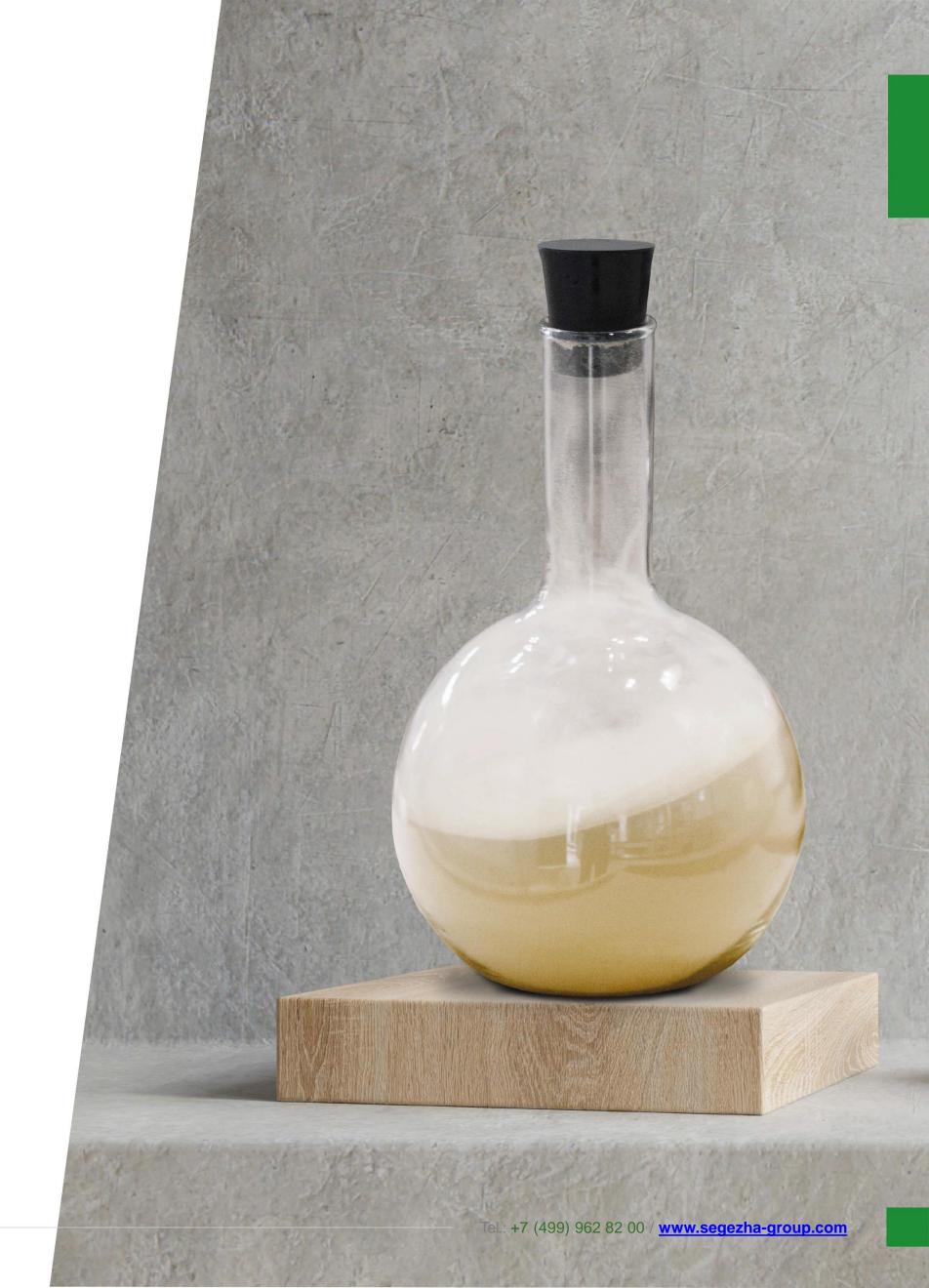


Technical lignosulphonates Universal production solution

- Technical lignosulphonates are generated during the production of cellulose by sodium bisulphite process from spruce wood
- Production of powdered lignosulphonates is performed at a drying plant with a capacity of 21,000 tonnes per year
- Lignosulphonates are low-toxic, do not cause any irritation or allergic reactions, and belong to the lowest hazard class (4)

Lignosulphonates are utilised in the production of concrete and cement, as plasticisers for various construction mixes, as a reagent in the oil industry, as a stabiliser in the chemical industry, as a binding agent in the metallurgy, etc.







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ADVANTAGES OF POWDERED LIGNOSULPHONATES

- 1. An environmentally friendly product made from homegrown timber resources
- 2. A sustainable alternative to petrochemical products
- 3. Long shelf life
- 4. Worldwide shipping



PRIMARY APPLICATION SCOPES



CONSTRUCTION



OIL PRODUCTION



CHEMISTRY



FOUNDRY INDUSTRY



WOODWORKING



FOOD INDUSTRY





Production site:

Sokol Pulp and Paper Mill (Russia, Vologda Region, Sokol)

Shipment regions:

Russia, CIS, Europe, Asia, Africa, Middle East, Latin America

Packaging:

Big bags — 550, 560, 570 kg

Primary export shipment ports:

Novorossiysk, Temryuk, Yeysk, St.Petersburg





Production of technical lignosulphonates Segezha Group

PHASE 1

21,000 t/year

March 2019 — start of lignosulphonate drying facility design January–February 2020 — equipment shipping October 2020 — start of production

Implementation of the project resulted in significant expansion of the lignosulphonate sales opportunities. This provided for the access to marginal export markets, expansion of the sales geography within the country, and reduction of logistics and storage costs.

PHASE 2

60,000 t/year

2021 — project design2023 — startup of the second phase of lignosulphonate drying operations

In 2023 a new paper machine will be launched at the Sokol Pulp and Paper Mill. The Sokol Pulp and Paper Mill retrofit project will provide for increase in utilisation of digester capacity and in the production of co-products — lignosulphonates. Installation of additional drying capacity will allow to treat all additional volume of liquid lignosulphonates and produce a high-margin dry product.





Data sheet

Technical powdered lignosulphonates **STO 020-08-2021**

No.	Indicator description	Indicator value
1	Dry content, wt.%, min.	96±2
2	Basic substance (technical lignosulphonate or sodium salt of lignosulphonic acid), wt.%, min.	57
3	Ash content on dry basis (indicator value is determined according to the Technical Specifications in porcelain crucibles at a temperature of 800 °C), wt.%, max.	20
4	Concentration of hydrogen ions in lignosulphonate solution, pH units, min.	4.5
5	Reducing substances on dry basis, wt.%, max.	13.0
6	Humidity, %, max.	4.0±2
7	Appearance — light brown powder	

Lignosulphonates are packaged in big bags of 550 kg, 560 kg, 570 kg.

Segezha Group technical specialists are ready to advise on any further questions.



