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Tel: +420-412-709 222**Fax: +420-412-547 200****E-mail: chemotex@chemotex.cz****www.chemotex.cz****Retostan FL****TECHNICAL DATA SHEET****TL 504/2009**

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Product characteristics**RETOSTAN FL** is an aqueous solution of cyan guanidine and polymer with formaldehyde.**Use**

It is a substance of highly cationic character. It reacts with surface-negative charge of most types of fibres, fibrous materials in paper waste waters even with negative charges of anionic pigments and tanning agents. It also reacts with surface active agents in communal even industry waste waters.

The predominant use of **RETOSTAN FL** is in waste waters in textile and paper industry. In these industries, it is necessary to clean up waste waters from re-cultivating preparations. It removes heavy metals bound in pigments.

Product features

It eases sedimentation and filtration in combination with insoluble alkali ferric, aluminium salts or siloxide. The originated coagulation curbs contained level of molecular organic substances in waste waters. **RETOSTAN FL** is a light yellow liquid of a cationic origin. It is miscible with water in cold environment and creates pure solutions. It is stable in hard water minimally up to 30 oN. It is stable within 4 to 10 pH.

Retostan FL must comply with these quality signs:

Quality sign	Value	Methodology of setting
Dry matter (%)	48 minimum	PN-ZM 504/2009
Appearance of 1% solution	pure liquid	PN-ZM 504/2009
Solution 1% pH	2,5 up to 4,5	PN-ZM 504/2009

Product manufacturing

RETOSTAN FL may be combined with commonly used organic even inorganic auxiliary agents in both cleaning process and pre-cleaning of waste waters.

Textile industry

Waste waters originated during textile production (pre-treatment, dying and washing) contain changeable quantity of pigments and textile auxiliary agents.

RETOSTAN FL is used especially after dying and soaping of reactive printings for flocculation of still concentrated colorations and for washing when the content of anionic substances (pigment and textile auxiliary agent) oscillates about 50 mg per litre of water. **RETOSTAN FL** in diluted form (2:1 up to 1:10) must be stirred thoroughly in a flocculation basin for at least 20 minutes. After dosing the flocculation agent, additive of ferrous

salt and subsequent alkalisation swift sedimentation follows. This is dependent on the quality (colourisation) of waste water, technological equipment and so on. When the reaction is finished, the originated coagulation (sludge) is diverted with the help of sludge pump to filter press for filtering.

Cleaned-up water may be diverted to drainage. After diluting remaining waters its quality may become even better. The dosage moves in the range of 0,1 up to 1 gram of **RETOSTAN FL** a 1 litre of sewage water.

Note: When additional ferrous salts securing sedimentation enhancements are used, it is necessary the waste-waters to be present in moderate oxidized environment in order to secure the transition into ferrous salts and its subsequent alkalization.

Paper industry

Fibres originated in paper-industry processes might also prevent shrinking process from its activation by **RETOSTAN FL**. Another possibility is to use even auxiliary flocculants on the basis of acrylamides and condensates of polyethylenimines and epichlorohydrins (e.g. RETOSTAN B).

Leather industry

The waste-waters from colouring and rinsing are governed by the same conditions like those in textile industry. Synthetic tanning agents are mostly of anionic origin hence the reaction functions very similarly. With respect to slow sedimentation process the use of either ferrous or aluminous salt come into consideration.

Municipal waste-water

They contain high percentage of anionic washing and cleaning agents. Before the implementation of sedimentation basin and filter tank it is possible to add **RETOSTAN FL** that creates insoluble salt which is easily intercepted and filtered out.

Packing and storage

RETOSTAN FL is usually delivered in polyethylene cans (25 litres or 50litres) or in other packages that have been discussed in advance. This product is stored in closed containers at the places protected from direct weather influences. The recommended storage temperature is between +5 to +25 °C. On the other hand, neither exposure to direct sunshine not even close to sources of heat is recommended.

Transport

RETOSTAN FL is transported in covered vehicles in accordance with the ADR/RID regulations.

Warranty

If the product is transported and stored according to the above mentioned conditions, the warranty is 6 months from the date of stock-out.

Note

Data about the product characteristics and its manufacturing were acquired by laboratory measurements and application tests. This technical sheet can only give a legal advice without any obligation. The manufacturing of the product must be adjusted to the specific conditions.