

Technical Specification

(at 20°C)	Appearance	Bulk density (kg/l)	pH-value (at 10 g/l)
SurTec 969	powder, white	1.157 (1.10-1.21)	2.1 (1.8-2.4)

Maintenance and Analysis

Analyse and adjust the concentration of SurTec 969 regularly. In case of make-up with sulfuric acid, analyse and adjust the total acid content in larger intervals.

A new make-up is necessary, if slight brown sludge occurs or if the amount for replenishment would be higher than for a new make-up.

Sample Preparation

Take a sample at a homogeneously mixed position. Let it cool down to room temperature. If the sample is turbid, let the turbidity settle down and decant or filter the solution.

SurTec 969 – Analysis by Titration

reagents: 0.1 N silver nitrate solution
chloride indicator (5 g $K_2Cr_2O_7$ + 95 g $NaHCO_3$)
or potassium chromate solution (5 %)

procedure: 1. Pipette 1 ml bath sample into a 300 ml Erlenmeyer flask.
2. Dilute with approx. 100 ml deionised water.
3. Add some indicator.
4. Titrate with 0.1 N silver nitrate solution from yellow to brown.

calculation: consumption in ml · 0.651 = % SurTec 969

Important: Determine the content of sulfuric acid only after analysing and adjusting the concentration of SurTec 969.

Sulfuric Acid – Analysis by Titration

reagents: 0.1 N sodium hydroxide solution
indicator: phenolphthalein

procedure: 1. Pipette 2 ml bath sample into a 250 ml Erlenmeyer flask.
2. Dilute to approx. 100 ml with deionised water.
3. Add 3 drops of indicator.
4. Titrate with 0.1 N silver sodium hydroxide solution from colourless to pink.

calculation: (consumption in ml - 2 ml) · 1.39 = ml/l sulfuric acid

Product Safety and Ecology

The safety instructions and the instructions for environmental protection have to be followed in order to avoid hazards for people and environment. The Material Safety Data Sheets (according to European legislation) contain explicit details for this.

The following hazard designations and classifications into water hazard classes (WHC) have to be taken into account:

<u>product</u>	<u>hazard designation</u>	<u>water hazard class</u>
SurTec 969	Xn - Harmful	WHC 1

Warranty

We are responsible for our products in the context of the valid legal regulations. The warranty exclusively accesses for the delivered state of a product. Warranties and claims for damages after the subsequent treatment of our products do not exist. For details please consider our [general terms and conditions](#).

Further Information and Contact

In our forum, you can discuss topics of the surface technology:

<http://forum.SurTec.com/>

If you have any questions concerning the process, please contact your local technical department: <http://SurTec.com/International.html>

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