

**Lewatit® S 6368 SULFATE**is a food grade, macroporous, monodisperse, strongly basic (type I) anion exchange resin based on a styrene-divinylbenzene copolymer.

Lewatit® S 6368 SULFATE is, in its hydroxide form, specially applicable for:

» the removal of acid and simultaneous decolorisation of solutions of organic substances. e.g. sugar, gelatine, glycerine, grape must, whey, fruit concentrates etc.

and in its chloride form for:

» the decolorisation of sugar syrup (beet or cane), glycerine, grape must, fruit juices.

The macroporous structure ensures very good adsorption of organic substances (e.g. colorants) and partial adsorption of organic acids and mineral acids. The substances are easy to be desorbed by regeneration with caustic soda solution (OH form) or alkalized brine solution (Cl form).

When using **Lewatit® S 6368 SULFATE** to treat potable water and the aqueous solutions listed above, special care should be given to the initial cycles of the new resin. Please refer to the recommended start-up conditions available on request.

The special properties of this product can only be fully utilized if the technology and process used correspond to the current state-of-the-art. Further advice in this matter can be obtained from Lanxess, Business Unit Liquid Purification Technologies (LPT).

This document contains important information and must be read in its entirety.





### **General Description**

Ionic form as shipped	Sulfate
Functional group	Quaternary amine, type I
Matrix	Crosslinked polystyrene
Structure	Macroporous
Appearance	Beige, opaque

### **Specified Data**

	metric units	
Uniformity Coefficient	max.	1.1
Mean bead size	mm	0.61 (+/- 0.06)
Total capacity	min. eq/l	1.1

### Physical and Chemical Properties

		metric units	
Bulk density	(+/- 5 %)	g/l	680
Density		approx. g/ml	1.10
Water retention		wt. %	58 - 64
Volume change	OH·> Cl·	max. vol. %	- 22
Stability	at pH-range		0 - 14
Stability	temperature range	°C	-20 - +85 (CI)
Storability	of the product	max. years	2
Storability	temperature range	°C	-20 - +40

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### Recommended Operating Conditions\*

		metric units	
OPERATION			
Operating temperature		max. °C	70 (OH) 85 (CI)
Operating pH-range			0 - 12
Bed depth		min. mm	800
Specific pressure drop	at viscosity 1 mPa*s	approx. kPa*h/m²	0.75
Pressure drop		max. kPa	300
REGENERATION, COUNTER-CURRENT			
Regenerant	type		a) NaOH + NaCl b) NaCl c) NaOH
Regenerant	quantity	approx. g/l	a) NaOH + NaCl: 20 NaOH + 200 NaCl b) NaCl: 200 c) NaOH: 50
Regenerant	concentration	wt. %	a) NaOH + NaCl: 1 NaOH + 10 NaCl b) NaCl: 10 c) NaOH: 4
Linear velocity	regeneration	approx. m/h	5
Linear velocity	rinsing	approx. m/h	4 - 5
Rinse water requirement	slow / fast	approx. BV	4
REGENERATION, CO- CURRENT			
Regenerant	type		a) NaOH + NaCl b) NaCl c) NaOH
Regenerant	quantity	approx. g/l	a) NaOH + NaCl: 20 NaOH + 200 NaCl b) NaCl: 200 c) NaOH: 80
Regenerant	concentration	approx. wt. %	a) NaOH + NaCl: 1 NaOH + 10 NaCl b) NaCl: 10 c) NaOH: 4
Linear velocity	•	approx. m/h	5
Linear velocity	backwash (20 °C)	approx. m/h	4 - 5
Bed expansion	(20 °C, per m/h)	approx. vol. %	12 (CI) / 12(SO <sub>4</sub> )

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Freeboard	backwash	vol. %	80 - 100	
	(extern / intern)			

<sup>\*</sup> The recommended operating conditions refer to the use of the product under normal operating conditions. It is based on tests in pilot plants and data obtained from industrial applications. However, additional data are needed to calculate the resin volumes required for ion exchange units. These data are to be found in our Technical Information Sheets.

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#### Additional Information & Regulations

#### Safety precautions

Strong oxidants, e.g. nitric acid, can cause violent reactions if they come into contact with ion exchange resins.

#### **Toxicity**

The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

#### **Disposal**

In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet-site of the European Union.

#### Storage

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions without exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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