PRODUCT INFORMATION
LEWATIT® VP OC 1026

LEWATIT® VP OC 1026 is a solvent impregnated resin (SIR) with a macroporous styrene DVB copolymer matrix which contains di-(2-ethylhexyl)phosponic acid (D2EHPA). This liquid extractant is directly incorporated during the formation of the copolymer. Generally it can be assumed that ions which can be removed with D2EHPA are also adsorbed by this product. The selectivity order for the extraction of cations from sulfate containing solutions can be assumed as follows:

VO^{2+}= UO_2^{2+}= Fe^{3+}= In^{3+}> Al^{3+} >Pb^{2+} = Zn^{2+}> Ca^{2+}> Cd^{2+}= Mn^{2+}> Cr^{3+}> Mg^{2+}> Co^{2+}

LEWATIT® VP OC 1026 is especially suitable for:

- The removal of ferric and zinc from chromium(III) containing acid baths
- The adsorption of zinc and ferric from sulphuric acid streams
- The recovery of rare earth metals and indium from acidic solutions

The advantages of this product compared to conventional solvent extraction are:

- No organic solvent for the dilution of the liquid extractant is required
- No phase separation problems
- Simple equipment similar to conventional ion exchange processes with a smaller plant footprint
- Very low leakage of the cations to be removed

Important advice:

- Exposure to any alkaline media (e.g. sodium/potassium hydroxide or sodium/potassium carbonate) should be avoided because the active ingredient might be washed out. **It is crucial to maintain the pH below 4 at all times (even during backwash and rinsing operations)!**
- Since the resin density is lower than water it tends to float. Therefore, the resin layer is recommended to be covered by inert material (e.g. **LEWATIT® IN 42**).

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.

Common Description

Delivery form	H^+
Functional group	D2EHPA
Matrix	Styrenic
Structure	Macroporous
Appearance	White, opaque

Specified Data

Uniformity coefficient		max.	1.9
Range of size for >90 vol% of all beads		mm	0.315-1.6
Zinc capacity (delivery form)		min. g/L	13

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	590
Density		approx. g/mL	0.97
Water retention (delivery form)		approx. weight %	27-34
Stability pH range			0-4
Stability temperature range		°C	1-60
Storability (from the time of delivery)		max. years	2
Storability temperature range		°C	-20 - +40

Operation

Operating temperature		max. °C	60
Operating pH range	during exhaustion		1-4
Bed depth for single column		min. mm	1000
Max. pressure loss during operation		kPa	250

Regeneration

HCl regeneration	concentration	approx. wt. %	10
H_2SO_4 regeneration	concentration	approx. wt. %	15

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.

LANXESS Deutschland GmbH
Liquid Purification Technologies
Kennedyplatz 1
50569 Koeln
Germany

+49-221-8885-0
lewatit@lanxess.com

www.lanxess.com
www.lewatit.com