

QUALITY DETOXIFIES.



Lewatit® TP 107 – Highly Selective and Regenerable Ion Exchange Resin for Efficient Removal of Polyatomic Oxyanions

Lewatit® TP 107 is a regenerable strong base anion exchange resin with an exceptionally high capacity. Its high selectivity towards polyatomic oxyanions such as chromate, molybdate and vanadate allows the efficient removal of these contaminants from wastewater and groundwater. Other water constituents, such as basic minerals, sodium, calcium, and chloride, which are beneficial for the water flavor, are less affected by the ion exchange process. This new product development facilitates our customers to save high operational costs by regeneration of the resin.

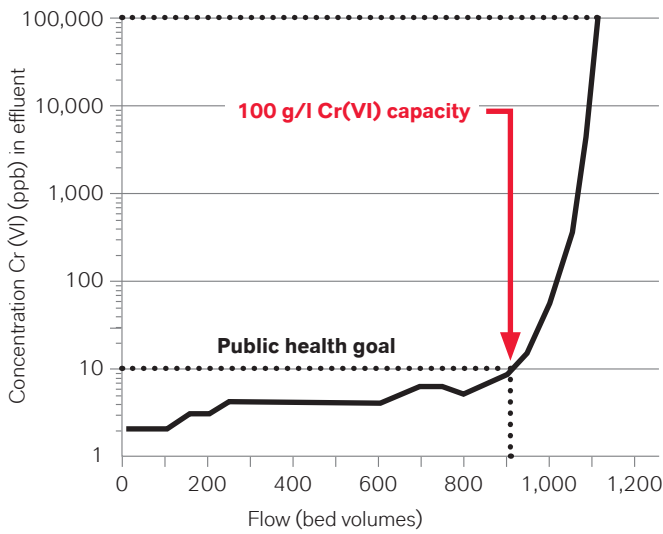
Applications

The high toxicity and potential carcinogenicity of many polyatomic oxyanions like CrO_4^{2-} , MoO_4^{2-} and VO_4^{2-} , are attracting the attention of the broad public view. Groundwater contamination with hexavalent chromate occurs naturally and via wastewater from the leather tanning, textile, wood, and metal-finishing industry. As a result, the public health goal of 10 ppb for hexavalent chromium in drinking water was recently set by the U.S. state of California. Therefore, LANXESS developed a cost-efficient purification technology to fulfill these low discharge limits.

Benefits

- Up to 5 times higher Cr(VI) removal capacities compared with conventional strong base anion exchange resins
- Chromate reduction efficiency by 5 orders of magnitude from 100 ppm to 5 ppb
- Long resin lifetime
- High capacity even in presence of background constituents such as chloride and sulfate
- Savings on operating costs due to less frequent regeneration and thus diminished chemicals consumption
- Legal requirements regarding discharge limits are fulfilled in a cost-efficient manner

Industrial wastewater purification

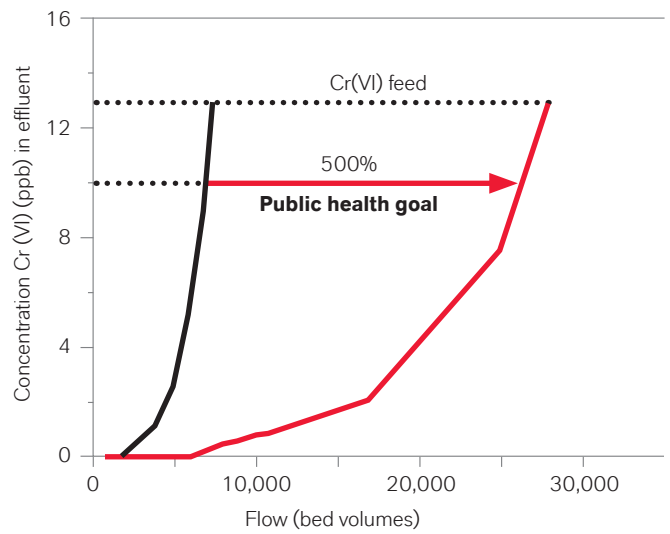


Feed composition

[Cr(VI)] = 100 ppm
pH = 7

Specific flow = 20 BV/h

Groundwater purification



— Conventional resin — Lewatit® TP 107

Feed composition

[Cr(VI)] = 13 ppb
[SO₄²⁻] = 140 ppm
[Cl] = 16 ppm
pH = 7

Specific flow = 60 BV/h

Certifications

Lewatit® TP 107 is in compliance with the “NSF/ANSI Standard 61” for health-related implications of drinking water system components and certified by WQA. For more information please visit www.wqa.org.

Contact

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We will be happy to support your business. Please contact us for additional information: visit www.lpt.lanxess.com

Energizing Chemistry

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