



## References throughout the Industries:

### Food industry

Area: Deodorising, emulsion separation and neutralising waste water.

Stabilisation of sewage sludge

Solution: Neutralac® SL, H, Q

Equipment: Duwa-Matic™ and Stabi-Matic™

### Electroplating waste

Area: Precipitation of heavy metals

Solution: Neutralac® SL, H, Q

### Pulp and paper industry

Area: sludge stabilisation

Solution Neutralac® Q, H

Equipment: Stabi-Matic™

### Biological wastewater treatment

Area: Reduction of sewage sludge.

Prevention of floating sludge.

Odour control

Solution: Neutralac® Q, H, CM

Equipment: Injecto-Matic™ L

### Industrial water purification

Area: Precipitation of heavy metals such as nickel and zinc

Emulsion separation and neutralisation

Solution: Neutralac® SL, H, Q, CM

### Sludge treatment

Area: Sludge dewatering, post-conditioning and hygienisation

Solution: Neutralac® SL, H, Q, CM

## Feel Free to Contact Us

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## Neutralisation of Nature's Waters

– So that they don't Acidify



## Neutralac® - Treating and Preventing Acidification

### Your Task

Minerals found underground can cause acidic loading in groundwater and surface water that can lead to the reduction of the pH-values in rivers and lakes, as can be currently seen in many post-mining lakes. In addition, acid waters release heavy metals previously bound in the soil that can endanger the quality of both groundwater and drinking water. Another aspect is that rising surface water leads to an acidification of connecting lakes and rivers.

Therefore, in order to save these potentially important bodies of water from ecological harm and turn them into areas suitable for touristic use, they must first be sustainably re-naturalised.

To most extents and purposes, acidic lakes are ecologically dead. Only a few plants can grow in this environment, and unlike in natural waters, animals avoid these bodies of water. Additionally, the pH values are far below the limit values set by the European bathing water regulations. They often fall significantly below the limit values for regulations on direct discharge into rivers.



### Calci-action® from Lhoist offers You the Ideal Solution

It combines

#### Specialised in Effluent Knowledge and Consulting

- an international network of expert
- a research and a development team dedicated exclusively to water and effluent issues
- validated results that originate from both laboratory and client field tests

#### Neutralac® Reagents

- have been specially developed for the initial and subsequent treatment of acidic surface waters
- permanently precipitates heavy metals from the body of water
- prevent the future decline of pH values
- can be used for dosing of lake inflows, outflows or directly in lakes

#### Services

- Analysis, examinations, recommendation of sustainable treatment concepts – including technical implementation, logistics and permanent monitoring
- Options of storage and dosing technology for implementation from the shore, off-shore and from the air
- Customised process development and facility planning
- Partnerships with various institutions (such as universities, authorities, etc.) for scientific monitoring

### Your Advantages

- A combination of best Neutralac® reagents and expertise tailored for each individual application which ensures the highest degree of efficiency and cost-effectiveness.
- A partner that has 20 years of experience in the neutralisation of acidic lakes. Specially developed boats distribute the reagents, and have special GPS/depth sounder monitoring technology. The concept is highly mobile and requires no additional on-shore construction facilities.
- Recommendation on the reagent dosage amounts required, including neutralisation potential and a treatment success prognosis are calculated using a special programme. At the same time, the concept allows prediction on the sustainability of the treatment measures to be undertaken.
- Reliable treatment – By balancing the lime-carbon dioxide levels in the body of water, pH values can be reliably regulated. In combination with CO<sub>2</sub> as an additional buffering agent, pH-values can be stabilised for very long periods.
- A sustainable lake environment with a long-term environmentally conscious integration of CO<sub>2</sub>.