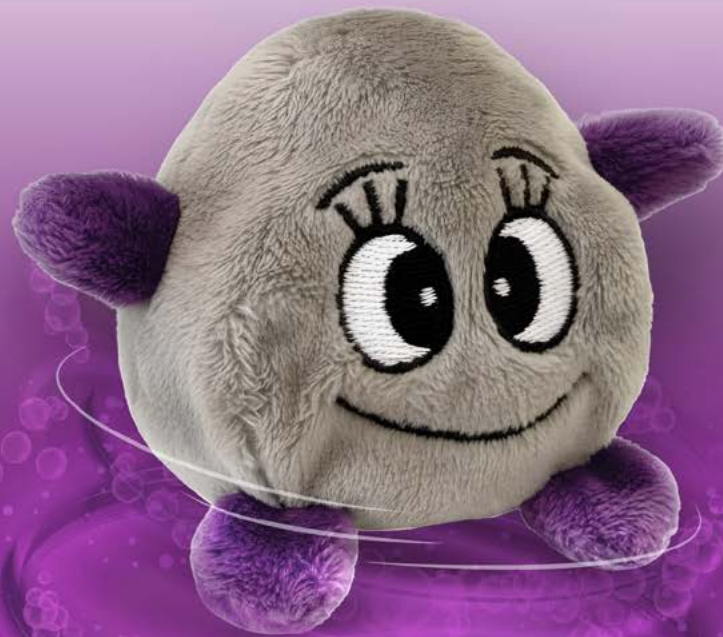


# einBLICK<sup>26</sup>

CUSTOMER INFORMATION REGARDING ENVIRONMENTAL PROTECTION, PRODUCTS & EXPERIENCE



**KARL IS COMING ...  
KARLA CLEARS THE WAY.**



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# WELCOME NOTE



**Dr. Ing. Kai Schaefer**

President Technical Services, Operations & Research

**Heike Horn**

President Finance & Administration, HR

**Matthias Löbbers**

President Marketing & Sales

## DEAR READERS

**SCHAEFER KALK** stands for innovation, quality, and reliability. We are pleased to present our advanced and innovative product development **SCHAEFER PRECAphos®aktiv** at **IFAT 2026**. With **SCHAEFER PRECAphos®aktiv**, we offer a completely new solution for meeting the demanding requirements of the future Municipal Wastewater Directive (KARL).

**SCHAEFER PRECAphos®aktiv** enables the simultaneous removal of micropollutants and phosphate precipitation – all with a single product, at one dosing point, and without the need for costly modifications.

Alongside our well-established and popular activated sludge floc Phossi, we are delighted to introduce our newest team member, Karla – the lively activated sludge floc. Thanks to **SCHAEFER PRECAphos®aktiv**, Karla can reliably bind not only phosphates but also micropollutants, ensuring optimal wastewater treatment.

For us, innovation always goes hand in hand with responsibility – towards the environment and towards one another. We are therefore especially proud to have received the European Sustainability Award 2025. This recognition confirms our commitment to setting standards not only technologically but also ecologically. Through numerous projects, we actively contribute to climate protection and regard sustainability as an integral part of our corporate strategy.

With this magazine, we would like to offer you genuine insights and look forward to inspiring you, informing you, and engaging in dialogue with you.

*Your SCHAEFER KALK Management Board*



## WE ARE AWARD-WINNING

**SCHAEFER KALK** takes 1st place in the “Environment – Best Practice” category at the European Sustainability Competition in Brussels.

Driven by the long-standing commitment of our geologist Steffen Loos, the biodiversity project at the Hahnstätten plant convinced the jury in late 2025. Its voluntary program delivers measurable benefits for endangered species – including the European bee-eater, Eurasian eagle-owl, natterjack toad, and yellow-bellied toad – across our quarries.



## GREEN ELECTRICITY AT SCHAEFER KALK

Hard to miss: our photovoltaic system at Plant Hahnstätten has been producing green electricity for production since 2024.

The system has an annual output of approximately **10 gigawatt hours**, which is used directly on-site and covers around a quarter of the total electricity demand.

“With this project, we are taking another important step toward our goal of achieving climate neutrality by 2045,” says Dr. Kai Schaefer.

Find out more about SCHAEFER KALK’s environmental responsibility:

→ [www.schaeferkalk.de/en/sustainability](http://www.schaeferkalk.de/en/sustainability)



## PHOSSI WELCOMES KARLA TO THE WASTEWATER TREATMENT TEAM!

Following our innovative products **SCHAEFER KLAROLIT®** and **SCHAEFER PRECAphos®**, **SCHAEFER PRECAphos®aktiv** celebrates its world premiere – providing a forward-looking solution to the new EU Municipal Wastewater Directive (KARL).



KEY BENEFITS	SCHAEFER KLAROLIT®	SCHAEFER PRECAphos®	SCHAEFER PRECAphos®aktiv
Increased acid buffering capacity within activated sludge flocs	✓	✓	✓
Optimized biological wastewater treatment	✓	✓	✓
Sulfide binding during digestion	–	✓	✓
Improved sludge index and enhanced sludge dewatering	✓	✓	✓
Innovative phosphate precipitation	–	✓	✓
<b>Micropollutant removal</b>	–	–	✓
Effluent quality after secondary clarification	even clearer	even clearer	crystal clear
Further information	Page 4	Page 5	Page 6–7



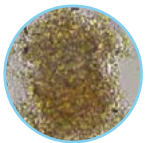
# SCHAEFER KLAROLIT®

## Optimizing biological wastewater treatment

**SCHAEFER KLAROLIT®** is a high-purity calcium source that provides essential buffering capacity directly to the activated sludge flocs and reliably neutralizes acids where they form.

These acids – generated during nitrification and introduced by liquid precipitating agents as well as soft rainwater – contribute to the depletion of buffering capacity. This can place significant stress on floc-forming bacteria and may lead to floc disintegration.

Activated sludge flocs strengthened by **SCHAEFER KLAROLIT®** ensure a low sludge index and effectively prevent sludge washout.



Well-mineralized activated sludge floc

Many wastewater treatment plants dose between 25–50 kg of **SCHAEFER KLAROLIT®** per 1,000 m<sup>3</sup> of dry-weather inflow each day. The product can be dosed either using 25 kg bags, 1,000 kg big bags, our SCHAEFER KALK rental silo system, or a customer-owned silo system directly into the activated sludge – ideally at a turbulent point.

## “GIVE YOUR DIGESTER KLAROLIT – AND GET IT BACK ON TRACK”

In case of low pH levels, high levels of organic acids, and foaming in the digester, targeted dosing into the excess sludge has proven effective. Organic acids are bound, and the digestion process is stabilized again after an acid shock or overload.

Practical experience shows that dosing approximately 2 kg of **SCHAEFER KLAROLIT®** per m<sup>3</sup> of primary and excess sludge can resolve digester issues within just a few days.



Further tips on preventing filamentous bacteria can be found in **einBLICK24**.



[schaeferkalk.de/en/downloads](https://schaeferkalk.de/en/downloads)



# SCHAEFER PRECaphos®

Phosphate precipitation without liquid-chemicals – **SCHAEFER PRECaphos®** makes it possible! 

With **SCHAEFER PRECaphos®**, we offer an innovative, patented, and highly effective solution for phosphate precipitation. Key benefits include the active increase in buffering capacity within activated sludge flocs and particularly efficient phosphate removal.

**SCHAEFER PRECaphos®** is a powdered multi-component product based on high-purity calcium compounds combined with special iron salts. Experience shows that one ton of **SCHAEFER PRECaphos®** can replace approximately 1.5 tons of acidic liquid precipitating agents such as ferric chloride or aluminum chloride.

By dosing **SCHAEFER PRECaphos®**, wastewater treatment plants can achieve very low effluent phosphate levels. A buffering effect can be established, allowing phosphate peaks to be effectively absorbed.

The reduced acid input and the resulting higher buffering capacity ensure stable, well-formed activated sludge flocs with significantly improved settling behavior and excellent dewatering properties.

The increased buffering capacity also enhances nitrogen removal during nitrification and denitrification.

Thanks to its iron component, sulfide binding during digestion is highly effective. Wastewater treatment plants report very low levels of hydrogen sulfide (H<sub>2</sub>S) in digester gas - an ideal condition for subsequent energy recovery.



## USER TIP

**SCHAEFER PRECaphos®** is particularly beneficial for smaller wastewater treatment plants, where its advantages become especially apparent. Due to its optimal properties, higher dosing can create a buffer within the system, ensuring reliable phosphate removal for several days.

Ideally, the product is dosed directly as a powder into the activated sludge at a turbulent point before or during nitrification. Dosing can be carried out easily using 25 kg bags or via a rental silo system from SCHAEFER KALK or a customer-owned silo system.

Unlike liquid precipitating agents, **SCHAEFER PRECaphos®** is not classified as a hazardous material for transport, making handling, storage, and dosing significantly easier and safer. This is particularly advantageous for smaller or remote facilities. Please refer to the safety data sheet for handling instructions.

**SCHAEFER PRECaphos®** received the Rhineland-Palatinate Innovation Prize ("Special Industry Award") in June 2022.



Phossi has also become the flagship figure on a semi-trailer of our in-house logistics company Edgar Grass.



*I'm Phossi – the happy activated sludge floc – thanks to SCHAEFER PRECaphos®!*

Turn the page – Karla is already waiting ... with **SCHAEFER PRECaphos® aktiv!**





# SCHAEFER PRECAphos®aktiv

**Micropollutant removal and phosphate precipitation – all in one product**

**SCHAEFER PRECAphos®aktiv** is an innovative advancement of our proven and award-winning **SCHAEFER PRECAphos®**. It combines highly effective, specialized activated carbon components with established precipitation technology – enabling efficient micropollutant removal and phosphate elimination in a single solution.

Extensive development work and multiple test campaigns – including one that has been running for over a year at a 50,000 PE wastewater treatment plant – demonstrate the efficient removal of micropollutants. This is achieved very easily using a SCHAEFER KALK rental silo system, from which **SCHAEFER PRECAphos®aktiv** is automatically dosed directly into the activated sludge.

Phosphate precipitation is highly effective, while biological wastewater treatment is simultaneously optimized. Micropollutants and pharmaceutical compounds are safely bound within the activated carbon component and retained in the activated sludge. Removal rates of over 80% can be achieved – without the need for costly structural modifications.

**And best of all: the entire wastewater flow is continuously treated!**

Karla, our lively activated sludge floc, confirms that performance comes without drawbacks: “The anthracite dark-brown coloration may take some getting used to, but I remain a very compact activated sludge floc and continue to settle excellently in the secondary clarifier.” Both laboratory and field tests show no carryover of product components – everything remains securely bound within the activated sludge. In many cases, additional filtration is not required. Compared to conventional treatment, the water in the secondary clarifier becomes significantly clearer – virtually crystal clear!

**SCHAEFER PRECAphos®aktiv** offers further decisive benefits. The product is not classified as hazardous material and, unlike powdered activated carbon, does not require explosion protection measures. Particularly noteworthy is that expensive modifications – such as additional contact tanks or separate activated carbon dosing systems – are completely unnecessary.

**And best of all: it can simply be tested without first investing millions in new infrastructure. Easy-to-implementation wastewater treatment for crystal-clear, cleaner water is the guiding principle here.**

This means: no major capital investment, no complex retrofitting, and significantly lower operating and maintenance costs compared to a structural fourth treatment stage.

**SCHAEFER PRECAphos®aktiv** delivers outstanding performance: reliable micropollutant removal, phosphate precipitation, and optimized biological wastewater treatment – all in a single product.



← 3 m →

↑ 3 m ↓

**Micropollutant removal on just 9 m²!**

With the SCHAEFER KALK rental silo system, phosphate and micropollutant removal is compact and reliable.

*I am Karla, the lively  
activated sludge floc,  
tackling micropollutants  
head-on!*



Effective removal of micropollutants through adsorption

Elimination of phosphates through highly effective precipitation components

Significantly improved settling behavior of activated sludge in the secondary clarifier

Improved biological processes in wastewater treatment

Neutralization of harmful acids

Simple and safe handling

Significantly improved purification of wastewater plant effluent into the receiving water

Micropollutant removal and phosphate precipitation on just 9 m<sup>2</sup> thanks to the SCHAEFER KALK rental silo system

**KARL IS COMING ...  
KARLA CLEARS THE WAY.**

# ENVIRONMENTAL PROTECTION WITH SCHAEFER KALK

Discover our innovative solutions  
for a more sustainable future

## SCHAEFER PRECA<sup>sorb</sup><sup>®</sup>

Special product for flue gas cleaning.



## SCHAEFER PRECAL<sup>®</sup> 56

Highly reactive hydrated lime for applications  
such as water softening.



## SCHAEFER PRECAL<sup>®</sup> 72

High-purity, highly reactive 20% lime milk,  
also suitable for drinking water applications.



## SCHAEFER PRECAL<sup>®</sup> 75

Highly concentrated 45% lime milk for  
industrial wastewater neutralization and  
heavy metal precipitation.



## SCHAEFER HAFTOLIT<sup>®</sup>

Hydrated lime for long-lasting  
asphalt roads.



[schaeferkalk.de/en](https://www.schaeferkalk.de/en)

From the chemical industry to food production,  
our products demonstrate exceptional versatility  
across a wide range of applications.

## Your contacts

Are you interested in our solutions  
or do you have questions about  
our products? Our experts are here  
to support you with professional  
advice and tailored solutions.



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