

CHEM. ENGI

where chemistry and engineering meet
for the sustainable future of water

Let's stop waste creating waste treatment.

CHEM. ENGI produce, deliver, and "install" optimal chemical products
for your wastewater treatment and sludge dewatering.

CHEM. ENGI is about our lifetime experiment of
how environmentally friendly we can be while making economic sense.



CHEM.ENG I

Not just a chemical supplier

CHEM.ENG I are chemists and engineers.

We not only develop and supply chemical products for wastewater treatment and sludge dewatering, but also provide engineering support that is necessary for optimal use of the chemicals. We produce, distribute, and "install" chemical products for you.

Sustainability is our goal

Our aim is to help you treat your wastewater and sludge economically in one of the most environmentally friendly ways. We supply organic biodegradable flocculants for solid-liquid separation. Even GRAS approved products. We would like to stop the negative spiral of waste creating waste treatment!

Based on more than 40 years of experience

We are group of people who are committed to solving your problems, not just supplying chemicals. We have been in wastewater and waste management industry for more than 40 years and that is long enough to understand that customer orientation is the only reason for our existence. CHEM.ENG I is a joint venture of Japanese and British companies who have been in water treatment business for decades.

YESfloc®

Aqueous dispersion polymer flocculant

We believe it is possible to have...

EFFECTIVE, ORGANIC and yet AFFORDABLE polymer flocculant that doesn't pollute and cost the Earth

YES, it is organic.

YES, it is biodegradable.

YES, it is non-toxic.*

YES, it is low-dosage.

YES, it works.

YESfloc®



The products can be supplied in 25kg tub or IBC tank.

The production of YESfloc® adheres to ISO9001 and ISO14001.

We also have oil based emulsion and granular flocculants and coagulants for standard wastewater and sludge applications.

*Toxicity based on acrylamide content defined by GRAS standard. Not all products of YESfloc® are non-toxic.

See how different **YESfloc®** is...

- Biodegradable, non-toxic*, flocculant derived from natural sources
- GRAS approved product
- Low dosage
- High dewaterability
- Easy handling, no maturation time, works instantly
- Dilution water saving by more than 10 times
- Eco-friendly manufacturing process, free from surfactants and solvents.

*Toxicity based on acrylamide content defined by GRAS standard. Not all products of YESfloc® are non-toxic.

You should get **YESfloc®** if you want to...

- Dewater and recover solids from distillery or brewery wastes and turn it into animal feed.
- Dewater algae from a lake and return the filtrate straight back to the lake.
- Dewater lagoon sludge and return the filtrate straight back to the lagoon.
- Dewater digestates well and yet minimize polymer consumption.
- Dewater waste activated sludge and return the solids to the field without environment impact of the polymer.
- Dewater raw wastewater directly and remove not only suspended solids, but also fat and grease.

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YESfloc® lineup

Polymer flocculants
for sludge dewatering and wastewater treatment

💧 Aqueous Cationic Dispersion

We prepared several different specifications of cationic dispersion flocculants, with different acrylamide contents, molecular weights, charge density, viscosity, and active content. The uniqueness can be found in one product that realized the combination of its very high molecular weight, low acrylamide content, and high active content. We also have completely acrylamide free 100% cationic flocculant that can be used for drinking water treatment or sludge dewatering where the final cake needs to be safely recycled for agriculture.

💧 Aqueous Anionic Dispersion

We prepared several specifications of anionic dispersion flocculants, and they are very universal. They are useful for wastewater, sludge, or any liquid waste with low pH even in acid pH unlike other anionic flocculants. They could be also used in combination with our cationic flocculant.

💧 Aqueous Amphoteric Dispersion

We also provides amphoteric flocculants that combine cationic and anionic charge in one polymer structure. This hybrid flocculant creates strong flocks thanks to its structure of having both anionic and cationic functional groups in linear macromolecules. It is relatively a newly developed product, but quite commonly used in sludge dewatering in Japan.

Other products

Polymer flocculants
for sludge dewatering and wastewater treatment

💧 Anionic and Cationic oil emulsion

Liquid flocculants emulsified in oil allows increase in the products active content. It is suitable for application where flocculant consumption is high and where you do not need to care about environmental impact of the treated water or sludge. Compared with granular solid product, it is easier to handle and use.

💧 Anionic and Cationic granular solid

Granular solid product allows further increase in the products active content up to 95%. It is suitable for application where flocculant consumption is very high and where you do not need to care about environmental impact of the treated water or sludge. Degree of cross-linking is lower compared with dispersion or emulsion polymers.

Services

Reliable, accurate, and unique



Lab jar test

[Free](#)

Please feel free to request our free lab jar test. We will identify what kind of chemical you will need for your sludge, wastewater, or liquid waste.



Consultation

[Free](#)

Please feel free to contact us to discuss your water, wastewater, sludge, or liquid waste treatment problems. Our specialists will come back to you with advises.

And yes, it is free.



On-site
process optimization

[Ask for quote](#)

Please feel free to contact us to discuss your needs to actually conduct engineering optimization on your facility. We are able to reduce your operation costs especially chemical costs by optimizing your wastewater treatment and sludge dewatering processes.

Case studies

Contribution to the ambition of Europe's largest alcoholic drink distillery to be environmentally sustainable

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Dewatering raw spent wash

The Europe's largest alcohol drink distillery located in Scotland has a great ambition to be the world's most environmentally sustainable distillery. Their bioenergy plant generates renewable energy from spent wash (mixture of wheat, malted barley, yeast and water produced during distillation). The spent wash needs to be separated into water and the solids, but the polymer flocculant that is necessary to be used for separation can be a massive operational cost if it is not optimized well. We, however, managed to optimize the whole process from analysis of the spent wash, conditioning, flocculating, and to dewatering for the customer. After our chemical and process optimization, the bioenergy plant has been receiving quality dry spent wash as renewable biofuel. And the polymer flocculant used is of course biodegradable eco-friendly product.



Flocculating raw wastewater from pastry factory

“ Primary treatment of raw wastewater ”

The factory was expanding its production and their wastewater started breaking the discharge consent. We engineered a complete package of primary wastewater treatment using YESfloc® and AMCON's VOLUTE dewatering screw press, which had been working to reduce suspended solids by 85%, fat and oil by 95%,and COD by 87%.



Turning spent wash digestate to animal feed

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One of the biggest Scottish whisky distilleries

Due to the nature of spent wash, it is not easy to flocculate suspended solids in spent wash. Moreover, the distillery wanted to recycle dewatered digestate spent wash as animal feed. YESfloc® with its water based GRAS approved spec was finally the only flocculant that met these criteria and we managed to engineer a transformation of spent wash digestate to animal feed.

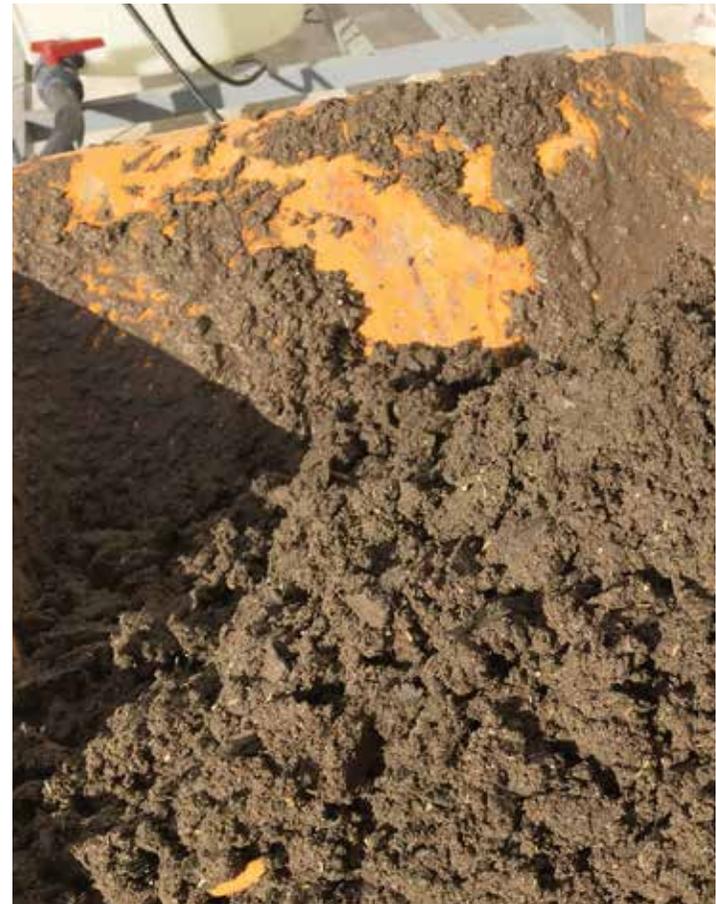


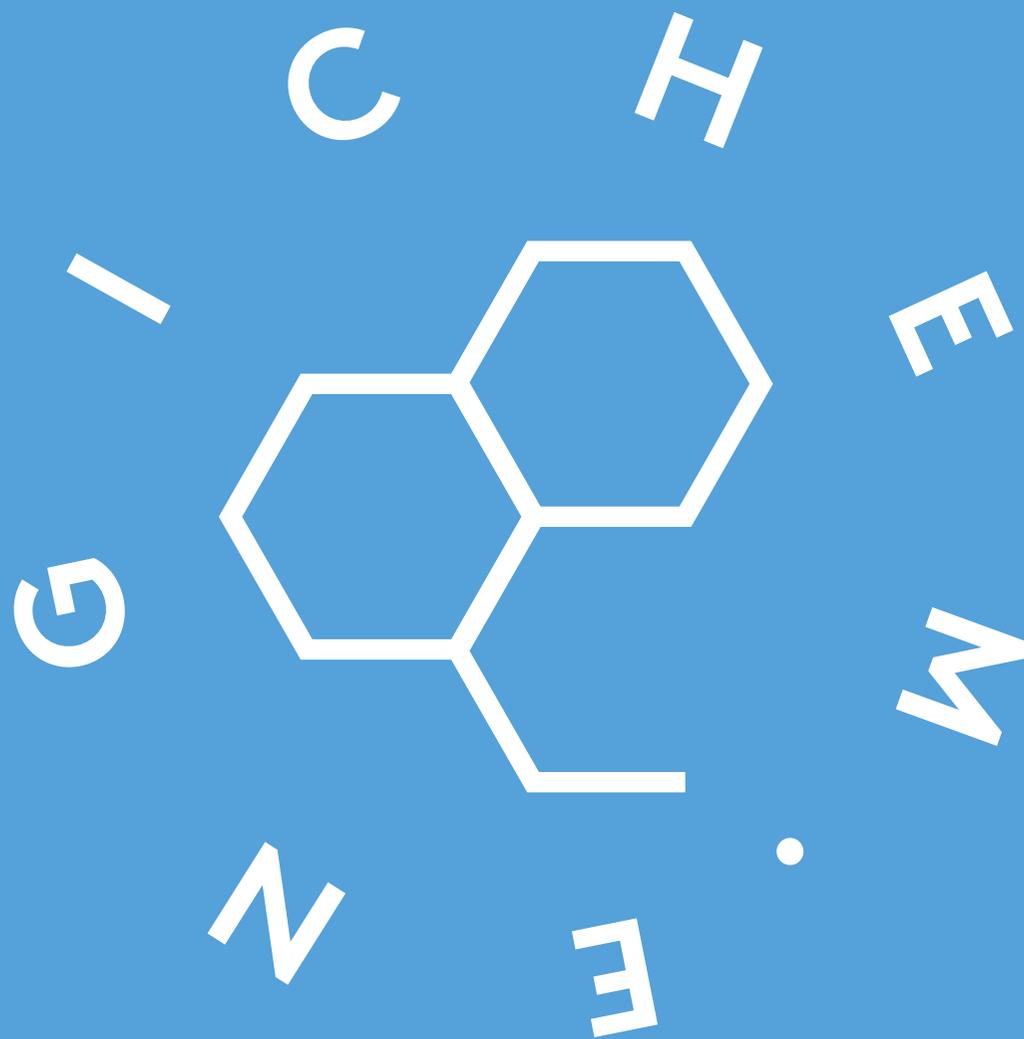
Reducing disposal costs in animal rendering

“ Dewatering DAF sludge ”

In an animal rendering plant in the UK it was necessary to reduce the costs for disposal. By applying our know-how and the use of our bio-degradable flocculants it was possible to take waste stream and turn it into a stackable cake therefore greatly reducing the cost of disposal and moving away from tankers to containers. The waste concentration varies between 7-10%, but with controls in place we ensured that polymer usage was kept balanced and costs kept under control.

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