

# WATER TECHNOLOGY **MADE IN GERMANY**

Technology for Water



**ENVIROCHEMIE**



PRODUCTS, COMPONENTS,  
INDIVIDUAL PARTS,  
EMPLOYEES, RESEARCH, ALL  
**MADE IN GERMANY**



ENVIROCHEMIE

ENVIROCHEMIE

Technology for Water



**ENVIROCHEMIE**

40 YEARS OF EXPERIENCE

7 MILLION HOURS OF ENGINEERING EXPERIENCE

300 PLANTS DELIVERED PER YEAR

10,000 SERVICE CUSTOMERS

Rossdorf

50 PER CENT EXPORTS

4 MILLION CUSTOMER AND SERVICE KILOMETRES PER YEAR

Eschenbach

WE HAVE OVER 40 YEARS' EXPERIENCE IN THE FIELD OF INDUSTRIAL WATER AND WASTEWATER TREATMENT ACROSS A RANGE OF SECTORS.

# ENVIROCHEMIE DELIVERS WATER TECHNOLOGY MADE IN GERMANY THROUGHOUT THE WORLD.

Our production facilities are located in Germany and Switzerland. Key process components such as pumps, valves, taps, measurement and control equipment are supplied by leading German and Swiss providers.

**As our client, you benefit from** the long service life and high energy efficiency of the components and processes used. An additional benefit is the long-term security of the spare parts supply. You can obtain all consumables and original spare parts directly from us.

Our plants and their individual parts are robust, durable and have proven themselves over 40 years of company history. At the same time, we are always at the cutting edge of technological development. In addition, we also share our expertise with you: your employees will be trained to use the plants, so that they are well-practised in their operation.

**EnviroChemie is the leader in decentralized industrial wastewater treatment in Germany and other European countries.** We are members of numerous German associations and organizations, including the Association of German Machine and Plant Engineering (VDMA), the German Water Partnership (GWP) and the German Society for Membrane Technology (DGMT).

Our training is **“Made in Germany”** too, and takes place at the customer’s premises. It is practical in nature, based on many years’ experience and ensures that all employees are acquainted with the plants and processes. A large proportion of our staff has long-standing engineering and operational experience. In total, our employees have several million hours of operational experience. They range from the young to the old, which ensures our innovation is based on experience.

**EnviroChemie is the leader in decentralized industrial wastewater treatment in Germany and other European countries.**

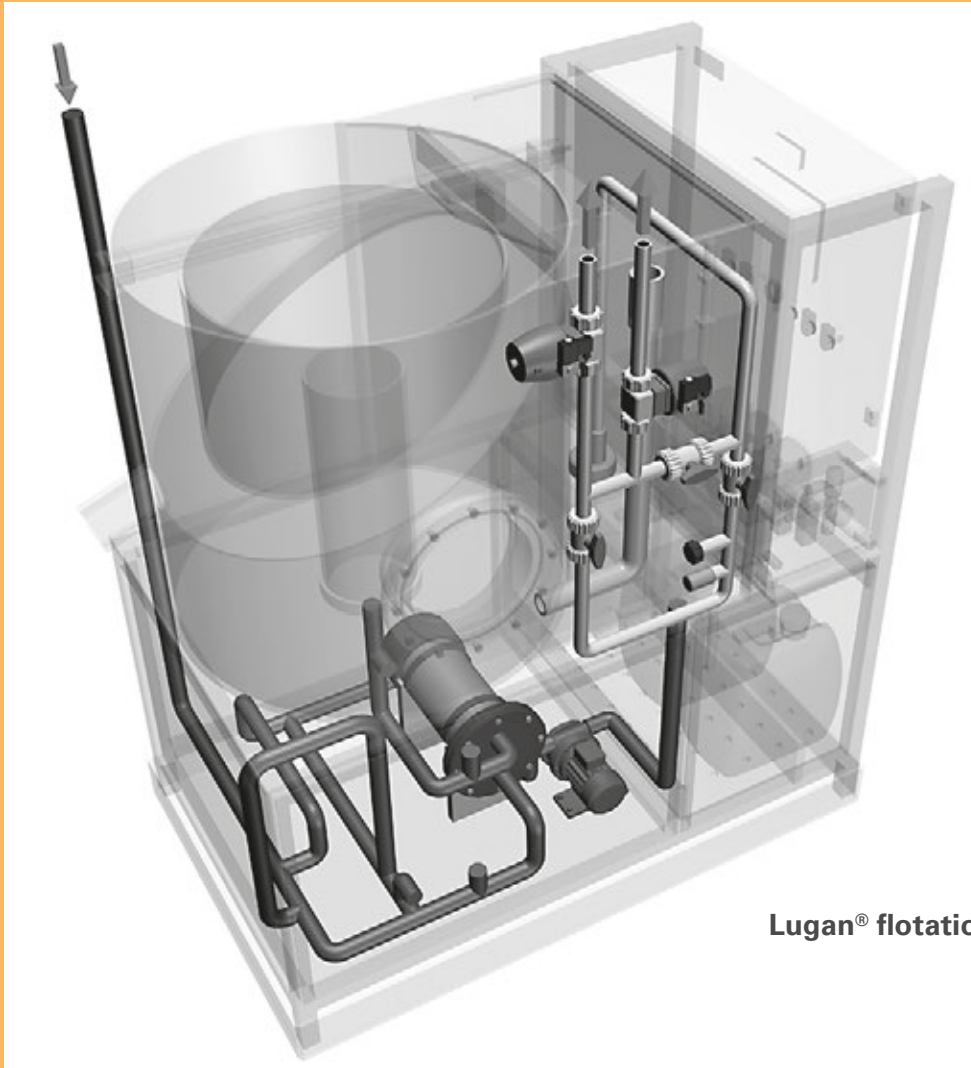
In our own research & development department, we develop new plants or further develop existing plants as part of customer orders. We regularly participate in German and European research projects. In our research & development department, we take an interdisciplinary approach: engineers and scientists develop new environmental protection measures or they collaborate on research projects with renowned universities and institutes, such as the Fraunhofer Society. This promotes knowledge transfer at the forefront of current research.



An EnviModul plant means you do not have to construct a building yourself.

## PRODUCTS MODULAR OR FULLY CUSTOMIZED?

**The right solution every time.** Our broad product range sets us apart. We focus on finding a suitable application that perfectly fits your needs. You can either be blown away by the simplicity of the EnviModul or you can order a solution from us which is fully customized to your individual requirements.



**Lugan® flotation plant**

**Our technology** – either modular or customized:

We resolve the various water and wastewater processing challenges using our company's proprietary solutions: the biological process **Biomar®**, the physico-chemical processes **Envochem®**, **Flomar®**, **E-Flo-Dr. Baer**, **Lugan®** and **Split-O-Mat®**, as well as the membrane technology process **Envopur®**. Our engineers modified these processes for the EnviModules, so that they can be fitted into pre-fabricated, high-quality housing modules and can be combined in many different ways, based on your requirements.



Decentralized, process-integrated wastewater treatment plant and water recycling for the automotive industry.

## THE RIGHT WATER TECHNOLOGY

for every manufacturing process

There are countless different types of industrial wastewater. In addition, the legal requirements for cleaned water differ significantly from country to country and sector to sector.

As a result, the person responsible for wastewater treatment in a company always requires a tailored solution. And above all else, this solution must be efficient.



Membrane biological wastewater treatment with water recycling and heat recovery concept for an industrial laundry facility.



# ENVIMODUL – OUR MODULAR SYSTEM

Simple, efficient and flexible



EnviModul, the modular plant system for treating wastewater from food manufacture, can easily be adapted to changing production requirements.

Link to  
EnviModul Video



## The EnviModul

It could not be simpler: Our modern technologies for the treatment of wastewater are encapsulated into modules, which can be combined to match customer requirements. The fully prefabricated, ready-to-go EnviModules then only need to be connected on site. You benefit from lower costs, increased flexibility and faster implementation. In addition, the EnviModul has been successfully tried and tested over many years.

Compared with traditional, centralized plant solutions, modular, decentralized plant solutions offer clear benefits. Engineers at EnviroChemie have therefore developed a modular system as part of a “Blue Competence” product development. Here an EnviModul component replaces operational buildings constructed from steel and concrete, is semi-mobile, adaptable to different climatic conditions, durable and visually attractive.

Better still, we can transport these decentralized water treatment, water recycling and wastewater treatment modules for you to any location worldwide. Planning permissions, transport permits and transportation of the plant can be quickly turned around, because everything can be processed simultaneously and as a package.

<b>Planning time</b>	Short
<b>Commissioning and testing</b>	Pre-tested in factory
<b>Expansion</b>	Very likely
<b>Level of complexity</b>	Low
<b>Permissions</b>	Planning permission very easy
<b>Processes</b>	Numerous processes possible
<b>Space requirement</b>	Standardized (module size)
<b>Location</b>	External, requires flat surface
<b>Depreciation period</b>	Short

## CUSTOMIZED PLANTS

Tailor-made, precise fit



Link to  
technology video

Well water treatment for polymer fibre production.

### Custom-manufactured plants

If you require a plant to be precisely integrated into your production hall or to carry out several processes simultaneously, then we can help you right from the outset: starting from scratch, we can assist with planning and configuring. Our engineers and technicians will create the right process for your individual needs.

We will undertake the planning, whether for water treatment, circulation or wastewater treatment. If required, we also assist you with the approval planning of the water management plants, where we also ensure precise adaptation to all external conditions.

Perhaps you require a plant for which there is only a specific space available. Or the plant has to be linked with your company via 500 different interfaces.

We can even develop the electrical planning and programme the plant control. We relish undertaking complex engineering work like this and attend diligently to every last detail.

<b>Planning time</b>	Long
<b>Commissioning and testing</b>	On site
<b>Expansion</b>	According to individual requirements, limited
<b>Level of complexity</b>	High
<b>Permissions</b>	Planning permission complex
<b>Processes</b>	Fully custom adjustable
<b>Space requirement</b>	According to individual requirements
<b>Location</b>	Integrated into production
<b>Depreciation period</b>	Long

# PROCESSES

## WATER TREATMENT & WASTEWATER TREATMENT



### Physico-chemical processes

**Envochem**<sup>®</sup>, our physico-chemical treatment of process water and wastewater, is one of the most efficient processes in water technology.

It is used in wastewater treatment, process water treatment and water circulation systems and, for example, to remove heavy metals or pharmaceutical elements from water. It is frequently employed in the chemical, pharmaceutical and metal-processing industries, in mining and in the solar industry.

For physico-chemical water and wastewater treatment, we use sophisticated components that have been either developed or tested by us. Our plants are manufactured in our German and Swiss companies or by their partners.



### Biological processes

Our **Biomar**<sup>®</sup> aerobic and anaerobic processes are used to treat wastewater with predominantly organic contents, for example, production wastewater from the food and beverage industry, pharmaceutical and chemical industries and the paper industry mainly contain organic impurities. These are well-suited for treatment by biological processes.

Depending on the composition and solids-content and based on the required cleaning results, we select the technology suited to your requirements from our large range of **Biomar**<sup>®</sup> biological wastewater treatment processes.



### Flotation plants

Flotation plants have been used for many years for the treatment of industrial wastewater and water circulation systems.

We use two tried and tested flotation processes for wastewater treatment: dissolved-air flotation and electroflotation. **Flomar**<sup>®</sup> dissolved-air flotation is particularly well-suited for the treatment of wastewater that is contaminated with organic residues from the food and meat industry.

**E-Flo-Dr-Baer** electroflotation, by contrast, is very efficient in the removal of oily substances or the treatment of wastewater containing particles and fibres.

Individually planned plants as well as small compact plant solutions are available for both processes.

## IN-HOUSE DEVELOPMENT & PATENTS

Our processes are based on over 20 patents

### Every production facility has highly individual requirements.

We develop concepts for water treatment which allow water and resources to be recycled, energy to be generated from wastewater, heat to be recovered or all wastewater to be recycled (zero liquid discharge). We have the right solution for you.



#### Ion exchangers

Our **Envochem**<sup>®</sup> ion exchanger plants detoxify industrial wastewater and ensure the production of water at the required quality levels.

Ion exchangers are used in the treatment of industrial process water and wastewater. They remove waste, recover precious metals, detoxify wastewater and treat water so that it can be recirculated. The technology is used in industries, such as the metal-processing, chemical and pharmaceutical industries, electroplating, or manufacturing and processing.

We not only design and build the plants for you, we are also happy to undertake the regeneration of ion exchange resins. Sorted by industries of origin, we regenerate each type of resin separately.



#### Membrane processes

**Envopur**<sup>®</sup> membrane plants are well-suited to the treatment of industrial wastewater by reverse osmosis, microfiltration, ultrafiltration, nanofiltration and membrane biology. Typical tasks for the application are process water treatment, water recycling, concentration of resources, rinsing water recycling, continuing bath maintenance, selective separation of materials, as well as wastewater treatment.

Our Envopur membrane plants for the treatment of industrial process water and wastewater have proven themselves in these areas over many years. Depending on the application, we select a process suited to your requirements – in many cases, also combined with our physico-chemical or biological processes.



#### Wastewater inactivating and decontamination

Our plants for inactivating wastewater are compact treatment plants for biotechnology and life sciences. They are used, for example, in laboratories, research facilities, public offices, hospitals and in the pharmaceutical industry.

Plants for chemical or thermal inactivation reliably destroy all bacteria and viruses in the infected wastewater.

Our proven wastewater decontamination plants are available for radioactively contaminated wastewater.



# INDUSTRIAL WATER FOR EVERY REQUIREMENT

**How do you want to use your water?** As cooling water, process water, feed water, fresh water – or does it require a specific purity level as wastewater? Whatever you require your water to do, we have a suitable solution.



#### **Process water**

We develop, build and install treatment plants for process water, which are tailored to each specific task, economical and environmentally friendly. Surface water such as well water, brackish water, rainwater, drinking water, seawater, rinsing water, but also treated wastewater can serve as untreated water.

#### **Recycled water**

Retreated water can either be fed back into the process, or reused for other purposes. Water recycling plants lead to a significant reduction in operational costs for production and preserve resources. In addition, several of our processes allow important resources to be recycled from industrial wastewater, which you can then reuse.

#### **Cooling water**

Efficient cooling systems are essential for industry to ensure smooth operations. Cooling water treatment plays a crucial role in this respect. We analyse your cooling water systems and optimize them so that neither hardness deposits, corrosion, biofilms, risks to health or production problems arise.

#### **Wastewater**

Wastewater from industrial production is generally contaminated with various substances and as a result, effective wastewater treatment is needed in order to achieve the limit values required. At the same time, plants should be energy-efficient and preserve resources. Better still, in many cases, operating costs can be reduced significantly through the use of sophisticated heat recovery concepts, or through the production of biogas.

# SERVICES

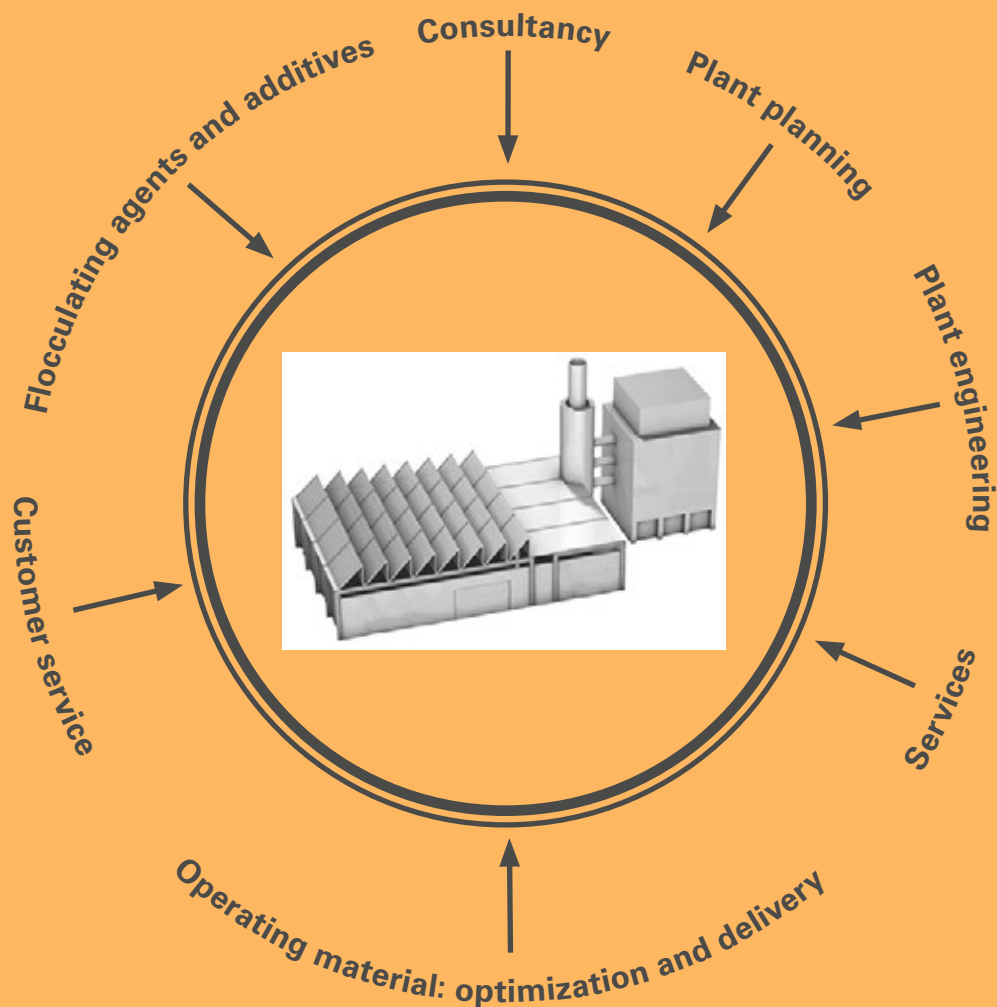
## FROM CONSULTANCY TO PLANT MAINTENANCE

**EnviroChemie not only builds plants,** we support you right from the start, every step of the way. Whether you want to discuss with us which products you require or you need assistance with the detailed planning or you want us to handle plant maintenance, we are happy to work with you to create a customized service package.

Please contact us for more information.



We start the joint planning with you from scratch.



**Comprehensive services for industrial water.** We share our expertise, our many years of experience and our technical competence with you. We only work with highly qualified staff, who have achieved the required statutory approvals and quality certifications. This ensures that EnviroChemie's high quality standards are adhered to at all times. We ensure your plants run smoothly and deliver the agreed water quality without fail.



## FOR YOU: A ONE-STOP SERVICE

### Fewer interfaces, greater deadline security

#### **Consultancy**

Do you need a specific water quality for your production, want to save water, raw materials and energy or have to clean wastewater to predetermined limit values? Then ask our experts for advice. We can discuss the steps required to implement plant technology that is tailored to your needs, either on site or at our headquarters.

The required parameters are developed by us in our process engineering laboratory. We can also advise you if you want to modernize existing plants, or if you want to save on operating costs.

#### **Planning**

We do not outsource the planning stage when constructing our plants, instead, in collaboration with you, we draw up the plans ourselves. We have our own in-house process technology to handle this, as well as proprietary electronic planning and process software. Everything comes from a single source which helps us to reduce the number of interfaces.

At the planning stage, when deciding which technological process to use and the main components of the plant technology, we consider characteristics, results of laboratory and pilot tests, structural prerequisites and any other requirements you may have. After which, the necessary construction measures are then defined.

#### **Plant engineering**

Whether you require a plant for water treatment, water recycling or wastewater treatment to be built from scratch, expanded or upgraded, we can build plant technology that precisely meets your needs. Our construction sites are managed entirely by our own staff.

We create the electrical planning in our electrical engineering department, programme the system controls and assemble the control cabinets. Engineering work and manufacture – it is all part of an integrated production service that is unique across Europe. What does that mean for you? Deadline security.

#### **Customer service**

Maintenance, service and repairs: Our customer service team is at your disposal for all questions relating to your plant. We ensure operations run smoothly, for example, by connecting your plants to our remote maintenance system.

Here at EnviroChemie, we have always set high standards for the quality and durability of our plants. We have our own team of technicians and provide everything we can to ensure that your plants run smoothly and are expertly maintained.

#### **Products and services for water treatment**

Our application technicians and engineers determine the optimal operating materials and dosage required for the optimal operation of your water treatment plants. Alternatively, we can adapt the existing plant technology on site to new requirements, for example when there are production changes or expansion. In this way, you can safely achieve the required water quality.

Any flocculating agents or additives tailored specifically to your processes are manufactured in-house.

# WE ARE **ENVIROCHEMIE**

ENVIROCHEMIE IS A LEADER IN THE  
TREATMENT OF INDUSTRIAL AND  
COMMERCIAL WATER AND WASTEWATER.





Innovation für Wassertechnik  
**ENVIROCHEMIE**



Link to online brochure  
plant engineering

FOR 40 YEARS, WE HAVE BEEN KNOWN  
FOR OUR MODERN, SUSTAINABLE  
SOLUTIONS, ALL "MADE IN GERMANY";  
AND OUR TECHNOLOGIES AND SPECIAL  
PRODUCTS FOR WATER TREATMENT.

We deliver sustainable solutions to all tasks pertaining to water treatment and the treatment of process water, circulation water, cooling water and wastewater. To achieve this we use technologies and special products for water treatment that we have developed in-house. Our engineers and application technicians adapt all plants to the requirements of our customers. It all started with custom-planned physico-chemical treatment plants and the famous compact wastewater treatment plants **Split-O-Mat®**. Today we sell our proprietary technological solutions across the globe.

## Our values

### Long-term partnerships

We act as a reliable partner and support our customers throughout the entire operating life of their plants. We show initiative and respond to the wishes and needs of our customers, by providing the highest customer benefit, excellent quality, innovative brands and technologies.

### Living up to our values

Innovation, durability and low resource consumption are of importance to us in relation to our technologies and service offering. We combine economic and ecological interests and thereby take our responsibility for the environment and conservation of resources seriously.

### Challenging and developing people

We value every employee and encourage their professional development. We treat each other with respect and are committed to those whose safety is a top priority in our actions. We expect independent action and a high level of performance of each individual, to ensure our success as a company.

### Helping to shape the future

We stand for technological leadership, innovation and quality. Results from our research are incorporated into our 40 years of experience in industrial water treatment. This ensures the responsible use of water, also into the future.



Management Board: f. l.: Dr. Gerd Sagawe, Dr. Jörg Krause, Peter Leyendecker, Stefan Letschert, Dr. Volker Oles

## Responsibility

### Water is life

As specialists in the treatment of industrial process water and wastewater, water as a resource is particularly close to our hearts. Our plants treat water so that it can be recirculated or reused. We clean wastewater so that it can be safely piped into the drains or directly into a river.

Together we are committed to projects, which relate to the protection or sustainable use of water as one of the most important natural resources for humanity and industry.

### Engagement

We promote and support projects both locally and in remote locations across the world, from youth work in Germany to social projects in South America. In the past, we have been equally committed to music projects, educational projects and to supporting sport for young people.

### Compliance

In the competition for orders, we compete on the basis of quality, customer benefits, the performance of products and services as well as reasonable prices. We support the fight against corruption and comply with the relevant laws. Socially and ethically acceptable behaviour and respect for local laws are the basis for the international cooperation of all companies and subsidiaries of EnviroChemie.

### New ideas and solutions

There is always room for improvement and the world of technology advances every day: This is why in our own research & development department, we develop new plants or further develop existing plants as part of customer orders, research collaboration or the development of our own plants.

Technology for Water



**ENVIROCHEMIE**



EnviroChemie Homepage

**GERMANY**

EnviroChemie GmbH  
Headquarters  
In den Leppsteinswiesen 9  
64380 Rossdorf near Frankfurt/M.  
Phone +49 6154 6998 0  
Fax +49 6154 6998 11  
info@envirochemie.com  
www.envirochemie.com

**AUSTRIA**

EnviroChemie Ges.m.b.H.  
Europastraße 8  
9524 Villach  
Phone +43 4242 41960  
Fax +43 4242 419689  
info@envirochemie.at  
www.envirochemie.at

**BENELUX**

EnviroChemie BV  
Waarderweg 52 c  
2031 BP Haarlem  
Phone +31 23 5345405  
Fax +31 23 5345741  
sales@enviro-chemie.nl  
www.envirochemie.nl

**BULGARIA**

EnviroChemie Bulgaria EOOD  
Evlogi Georgiev Blvd. 100,  
St. 4, app. 7  
1505 Sofia  
Phone +359 2 8463065  
Fax +359 2 8463066  
info@envirochemie-bg.com  
www.envirochemie.bg

**GREAT BRITAIN**

Clearfleau Group Limited  
Lilly Hill Court, Lilly Hill Road  
Bracknell, Berkshire  
RG12 2SJ  
Phone +44 844 477 6292  
info@clearfleau.com  
www.clearfleau.com

**MIDDLE EAST**

EnviroChemie FZCO  
Building No.: 7W – A  
Office No. : 3059  
Dubai Airport Free Zone Area  
United Arab Emirates  
Phone +971 504826842  
middleeast@envirochemie.com

**MAGHREB**

EnviroChemie Maghreb  
S.A.R.L.  
Résidence El Fahim 2.  
1er étage, Promenade Jaïch  
Al Malaki (Av. des FAR)  
Kénitra  
Phone +212 6 31460979  
africa@envirochemie.com  
www.envirochemie.com

**RUSSIA**

OOO Enviro-Chemie GmbH  
86 Belinskogo str.,  
sector 7, floor 8  
620026 Yekaterinburg  
Phone +7 343 278 2780  
Fax +7 343 278 6130  
info@enviro-chemie.ru  
www.envirochemie.ru

**POLAND**

EnviroChemie Polska Sp.z o.o.  
ul. Równoległa 9A  
02-235 Warsaw  
Phone. +48 22 8463841  
Fax +48 22 8463845  
info@enviro-chemia.pl  
www.envirochemia.pl

**SWITZERLAND**

Wastewater Technology  
EnviroChemie AG  
Twirrenstrasse 6  
8733 Eschenbach/SG  
Phone +41 55 2861818  
Fax +41 55 2861800  
office@envirochemie.ch  
www.envirochemie.ch

**OTHER LOCATIONS**

**BRASIL**

EnviroChemie do Brasil Ltda.  
Shopping Downtown  
Av. das Américas nº 500,  
Bl. 19 – sala 302-B  
Barra da Tijuca  
CEP 22640-100 Rio de Janeiro  
Phone : +55 21 2146 4108  
info@envirochemie.com.br  
www.envirochemie.com.br

**ROMANIA**

DiAqua Technology SRL  
Str. Visarion nr. 18  
18 Visarion street, ap. 2  
010422 Bukarest  
Phone +40 21 3112870  
Fax +40 21 3112871  
office@envirochemie.ro  
www.envirochemie.ro

Version: 08/2018