

## Your personal specialist for biocides

Biocidal application and equipment hygiene



Wherever there is moisture and a potential food source, there is the risk that microorganisms will grow. Many places, processes and products offer ideal conditions for microbial growth. This could lead to a threat to the health of humans and animals, enormous economic damage, product defects and hygiene problems.

Biocides are therefore indispensable in modern industrial manufacturing as they extend product life and protect staff and equipment. Biocides reduce the consumption of energy and natural resources as well as the volume of waste due to their economic and social benefits.

Under the brand names Vinkocide, grotan®, grotanol®, parmetol®, Vink Chemicals offers well over 230 different biocidal products for a wide range of applications. These can be used to formulate tailor-made solutions for all major industries.



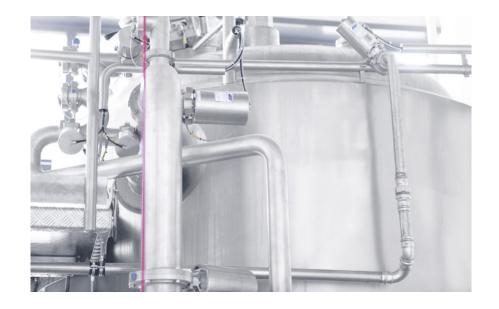
# A Team with Our Customers

VINK CHEMICALS GmbH & Co. KG is your specialist for biocides and biocidal products. VINK CHEMICALS was founded in 2011 as a medium-sized family business based in Kakenstorf in Lower Saxony. By specialising in the production of application-specific biocidal formulations and tailor-made services in this field, we are closing an important gap in the German and international biocide market. We also offer a selection of speciality chemicals. Vink Chemicals is active worldwide.

### Vink Chemicals

#### Professionals in the correct use of biocides

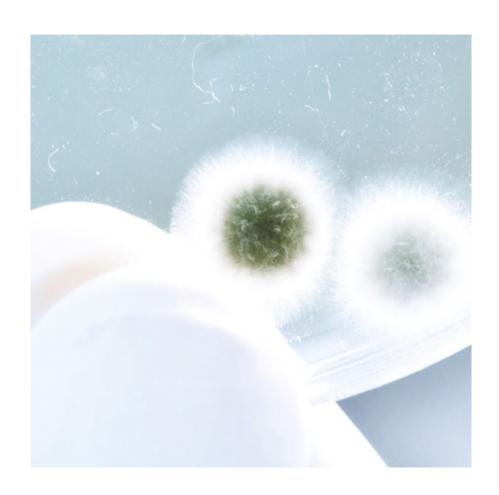
Vink Chemicals has modern storage facilities for hazardous goods and its own production plants for state-of-the-art manufacturing of biocidal products. At our production sites, we develop and formulate individual biocides in batch sizes of up to 20 tonnes per batch. We have around 100 specialists worldwide who are responsible for our production facilities, distribution, raw material purchasing, and product development and quality control in our own laboratory.





#### Certified quality and safety

Quality and environmental care are especially important to us. We work with the highest industry standards and are periodically audited and certified by SGS. We hold ISO 9001:2015 certification for quality compliance and ISO 14001:2015 for environmental care.



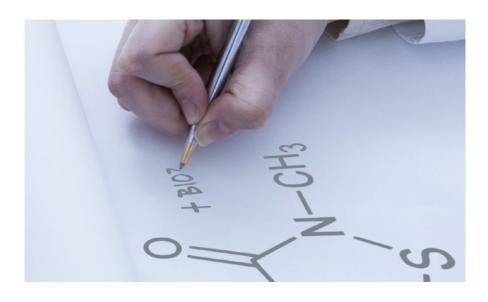
#### Preservation for every industry

Our product portfolio includes the complete range of well-known biocides for in-can and film preservation for paints and coatings, adhesives, water treatment, metal working and lubricants, pulp and paper, textile and leather, construction, disinfection, detergents, cleaning agents, polymers, agriculture, oil and gas, among others.

#### Experts in isothiazolinones and formaldehyde releasers

Vink Chemicals specialises in isothiazolinones and formaldehyde releasers as well as their combination with other chemicals. Isothiazolinones and formaldehyde releasers are still among the most important biocides. For their use to be effective, it is important to understand their effectiveness and reactivity as well as their behaviour. Whatever your individual requirements for biocidal formulations may be, we have solutions for the specific needs of your industry.

Besides bacteria, biofilms are responsible for damaging products, production lines and equipment. We have therefore also developed system cleaners to eliminate and remove biofilms. Depending on your needs, we can provide specific biocidal system cleaners as well as biocide-free system cleaners.



## Our product range

Tailor-made biocidal formulations work better



#### CMIT/MIT types

Product name	Formulation	pH scope
parmetol® K 6	CMIT/MIT + Mg/Cu salts	3 - 8.5
parmetol® K 11	CMIT/MIT + Mg/Cu salts	3 - 8.5
parmetol® K 20	CMIT/MIT + Mg/Cu salts	3 - 8.5
parmetol® K 40	CMIT/MIT + Mg/Cu salts	3 - 8.5
Vinkocide CMI 1.5	CMIT/MIT + Mg salts	3 - 8.5
Vinkocide CMI 1.5 +	CMIT/MIT + Mg/Cu salts	3 - 8.5
Vinkocide CMI 1.5 M	CMIT/MIT, monovalent	3 - 8.5
Vinkocide CMI 14	CMIT/MIT + Mg salts	3 - 8.5
Vinkocide CMI 14 +	CMIT/MIT + Mg/Cu salts	3 - 8.5
Vinkocide CMI 14 M	CMIT/MIT, monovalent	3 - 8.5
Vinkocide PG 1.5	CMIT/MIT, salt-free	3 - 8.5

#### CMIT/MIT + bronopol types

Product name	Formulation	pH scope
parmetol® A 28	CMIT/MIT + bronopol	3 - 8.5
parmetol® A 28 S	CMIT/MIT + bronopol	3 - 8.5
Vinkocide CMIB 25	CMIT/MIT + bronopol	3 - 8.5
Vinkocide CMIB SE	CMIT/MIT + bronopol	3 - 8.5
Vinkocide CMIB SS/SSM	CMIT/MIT + bronopol	3 - 8.5
Vinkocide CMIB WA	CMIT/MIT + bronopol	3 - 8.5
Vinkocide CMIB WK	CMIT/MIT + bronopol	3 - 8.5

#### MIT types

Product name	Formulation	pH scope
Vinkocide MIT 10/20/50	MIT	2 - 9

#### BDA types

Product name	Formulation	pH scope
parmetol® MBX	BIT + MIT + BDA	3 -10
parmetol® BPX	BBIT + BDA + PE	3 - 11
parmetol® SBX	BIT + BDA + NaPT	3 -11
grotan® BA 21	BIT + BDA	< 11

#### BIT types

Product name	Formulation	pH scope
parmetol® D 11	BIT	3 - 11
Vinkocide BIT 10/BIT 10 G	BIT	3 - 13
Vinkocide BIT 20 D	BIT	3 - 13
Vinkocide BIT 20 G/20 PG	BIT	3 - 13
Vinkocide CMIK/CMIK 10	CMIT/MIT + BIT	3 - 8.5
Vinkocide KN	BIT + NaPT	up to 13
Vinkocide KN-K	BIT + NaPT	up to 13

#### CMIT/MIT + FAR\*

Product name	Formulation	pH scope
parmetol® A 26 N	CMIT/MIT + EUF	3 - 9.5
parmetol® DF 35 N	CMIT/MIT + EUF	3 - 10
Vinkocide 824/825/836/869	CMIT/MIT + EDDM	3 - 10
Vinkocide CMIF	CMIT/MIT + EDDM	3 - 10
Vinkocide CMIF - N Vinkocide CMIF - N 20	CMIT/MIT + TMAD	3 - 9
Vinkocide CMIF 14	CMIT/MIT + EDDM	3 - 10
Vinkocide CMIF 35	CMIT/MIT + EDDM	3 - 10
Vinkocide ECO 26/35	CMIT/MIT + formalin	3 - 10

\*Formaldehyde releaser

#### OIT types

Product name	Formulation	pH scope
Vinkocide OIT 8	OIT	2 - 10
Vinkocide OIT 16/16 WME	OIT	2 - 10
Vinkocide OIT 45/45 WME	OIT	2 - 10

#### OIT + FAR\*

Product name	Formulation	pH scope
grotan® TK 5 plus	OIT + EDDM	< 11
grotan® TK 5 plus N	OIT + EUF	< 11
Vinkocide OF	OIT + EDDM	3 - 11
Vinkocide OF 50	OIT + EDDM	3 - 11

\*Formaldehyde releaser

### Wide variety of formulations

The right solution for your individual preservation needs



IDDC	
ILRC	types

Product name	Formulation	pH scope
Vinkocide I10/I20/I30	IPBC + PE	4 - 10

#### Bronopol + OIT types

Product name	Formulation	pH scope
parmetol® N 20	Bronopol + OIT	3 - 8.5
Vinkocide BO/BO 313	Bronopol + OIT	< 9

#### BIT + FAR types

Product name	Formulation	pH scope
Vinkocide BF/BF 56	BIT + EDDM	3 – 12

#### MBO types

Product name	Formulation	pH scope
grotan® OX	MBO	8 - 11

#### BIT + MIT types

Product name	Formulation	pH scope
Vinkocide KTL	BIT + MIT	2 -11
Vinkocide KTL 55	BIT + MIT	2 -11
Vinkocide KTL 59	BIT + MIT	2 -11
Vinkocide KTLB	BIT + MIT + bronopol	N/A
Vinkocide KTLD	BIT + MIT + DGH	N/A
Vinkocide KTLF	BIT + MIT + EDDM	N/A
Vinkocide KTLN	BIT + MIT + NaPT	6.5 - 9.5

#### Types for film preservation

Product name	Formulation	pH scope
parmetol® CF 8	Zinc pyrithione + terbutryn	3 - 10
parmetol® DF 19 forte	Carbendazim + diuron	3 -12
parmetol® S 15	DCOIT	< 8.5
Vinkocide CD 30	Carbendazim + diuron	3 - 13
Vinkocide CDO	Carbendazim + diuron + OIT	3 - 13
Vinkocide X10 S	DCOIT	N/A
Vinkocide X20	DCOIT	N/A

#### Special types

Product name	Formulation	pH scope
grotan® WS	HPT	8 - 12
grotan® WS plus	HPT + NaPT	8 - 12
s&m bronopol	Bronopol	3 - 8
s&m phenoxyethanol	PE	< 12
grotanol® 3025	CMIT/MIT + Glutaraldehyde	3 - 8,5
grotanol® FF 1 N	BIT + NaPT + BDA	3 - 12
grotanol® SR 2	MBO + NaPT	Application specific  → on request
parmetol® PSG	Sodium benzoate + Potassium sorbate	< 5,5
parmetol SL 60	CMIT/MIT + Glutaraldehyde	3 - 8,5
Vinkocide DBNPA 20	DBNPA	7 - 9
Vinkocide DBNPA 20 B	DBNPA	7 - 9
Vinkocide F	EDDM	3 - 9
Vinkocide NaPt 40	NaPT	6,5 - 13

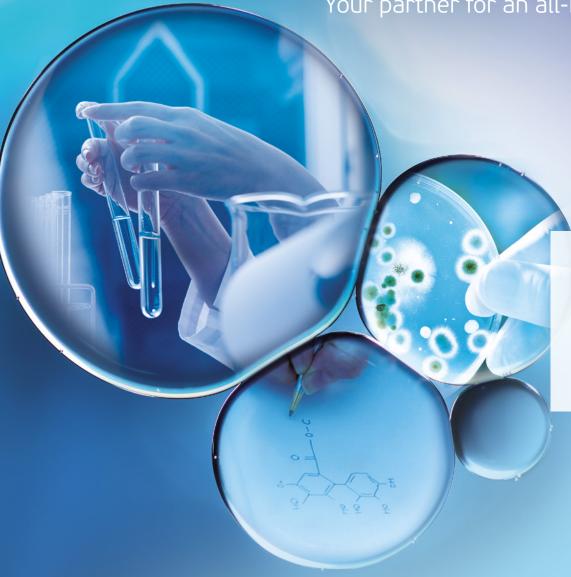
Own active substances listed on ECHA's Article 95 list:

CMIT/MIT, BIT, MIT, TMAD, MBO, HPT





Your partner for an all-in-one service

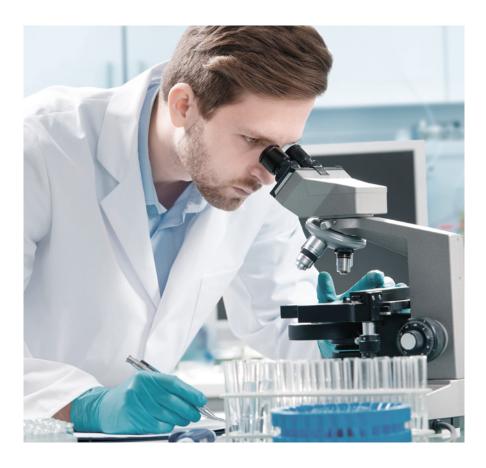


Our service starts with our individualized product recommendation. In addition, we also offer laboratory service, regulatory advice, logistics support, raw materials procurement, research and development, plant audits, tailor-made formulations and many other services related to biocides and industrial hygiene.

#### Microbiological tests

We provide you with the entire microbiology analysis with proven high-speed methods. The analysis can include qualitative and quantitative germ identification, sterility tests and different germ contamination tests. We carry out germ content determination according to traditional methods, germ identification, germ contamination tests according to various standards and sterility tests for you. In addition, we use proven microbiological high-speed methods.





#### Laboratory analyses

Our laboratory experts will help you to determine the stability of our biocidal formulation in your product and find the optimal solution for your application. We have comprehensive laboratory equipment for this purpose, which includes HPLC, UV-DAD and mass spectrometers as well as post-column derivatisation. We also determine all necessary physical parameters and the aw-value.



#### Raw materials procurement

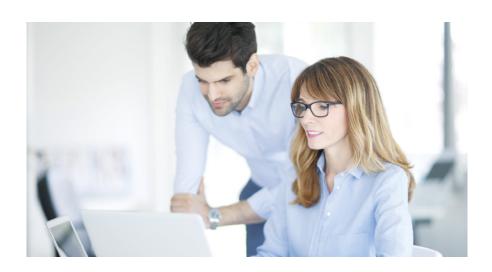
Based on our many years of experience with chemical and cosmetic raw materials, we also have an entire range of important raw materials available as trade products in addition to our biocidal products. This rounds off our offer for the various user groups.

#### Technical advice

Technical advice is an integral part of our customer service. We support your product development with regard to the selection and application of biocides and work with you to find the best solution for your specific tasks. This includes industrial hygiene, toxicology, ecotoxicology, regulatory issues and all aspects regarding the correct, efficient and economical use of biocides.

#### Regulatory advice

No need to concern yourself with the Biocidal Products Regulation (BPR), REACH, UFI or the CLP Regulation. We would be pleased to advise you on regulatory issues and support you in implementing the applicable laws, directives and regulations as well as the required applications, registrations and authorisations of all biocidal products.



#### Worldwide delivery

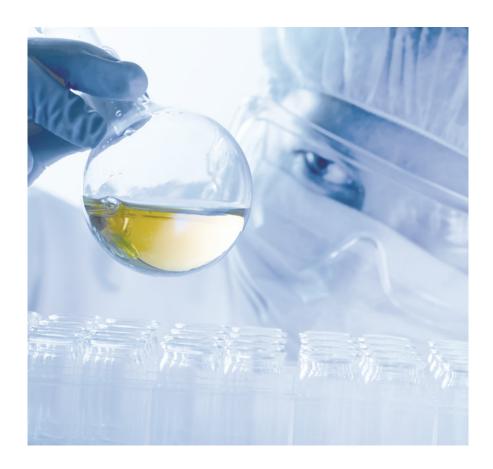
Vink Chemicals offers logistics support and worldwide delivery of biocides and speciality chemicals. We also handle the temporary storage of

goods worldwide. Thanks to our subsidiaries and partners, our products are available locally and in the national currency.



#### Research and development

Our expertise is always state-of-the-art. We are able to achieve this through our own research and development at our highly modern laboratories. We examine the behaviour and composition of the active ingredients in the end products and determine optimal concentration and stability as a function of time or other parameters. We are also looking for new trends, combining actives and molecules and continuously creating new formulations for better product protection, right dosages and regulatory compliance





#### Industrial hygiene

Individually tailored industrial hygiene advice from Vink's team of experts on site ensures that biocides are used effectively. Better results can be obtained from biocides if good industrial hygiene is applied. This saves money and helps the environment. It also includes combating harmful biofilms in production plants. Their formation can be reduced with effective cleaning measures. We can also advise you on general industrial hygiene and we offer regular hygiene monitoring.







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Vink Chemicals or sales partners thereof will inform you about the regulatory status of each product upon your request. Use biocides safely. Always read the label and product information before use.

Our recommendations regarding our products are given in good faith, but imply no corresponding liability.