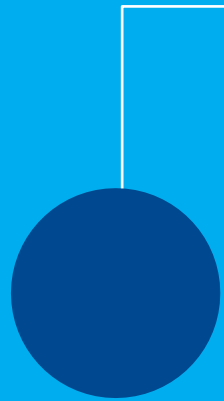


# Biocides for coatings and building materials

Optimal protection for your products and plant



# A Team with Our Customers

Vink Chemicals GmbH & Co. KG is a family owned medium-sized company founded in 2011 and based in Kakenstorf in Lower Saxony. Vink Chemicals is involved in the production of biocide formulations for a variety of industries.

By specialising in tailor-made services in this field, we are closing an important gap in the international biocide market. We also offer a selection of speciality chemicals.

Vink Chemicals is active worldwide!

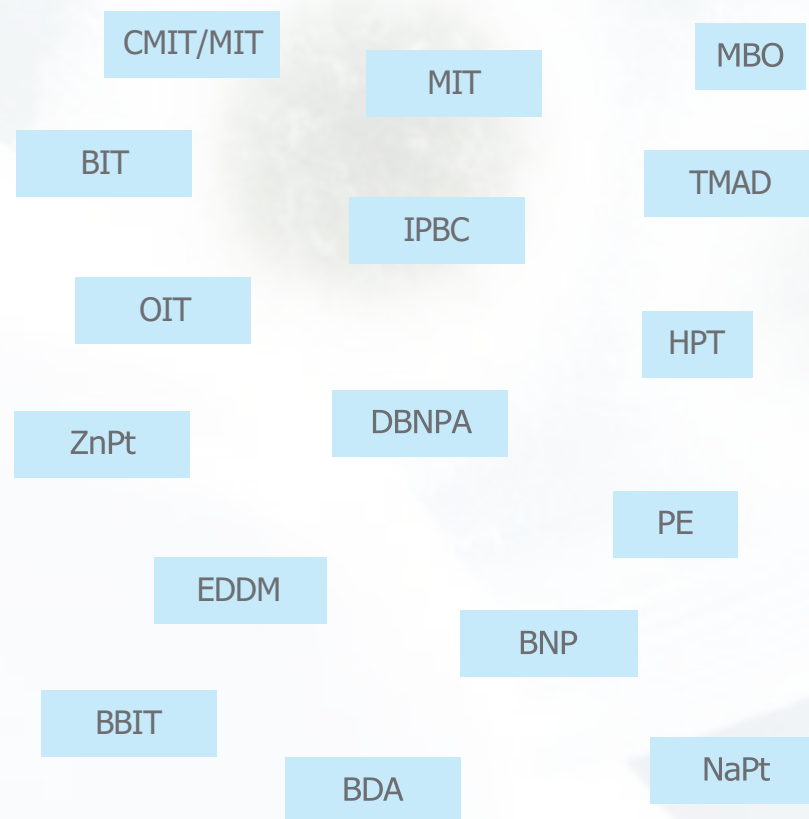
# Biocides

Customised biocide formulations are more effective

The most important antimicrobial substances, used as the basis for many of our formulations, are isothiazolinones and formaldehyde releasers. To use isothiazolinones and formaldehyde releasers effectively and efficiently, it is particularly important to know their mode of action. This is where Vink Chemicals excels. Further our experts advise you in technical and regulatory questions, supporting you with tailored plant hygiene concepts.

We produce and deliver application tailored formulations, based on our portfolio of biocide active substances.

Vink Chemicals' proprietary active substances CMIT/MIT, MIT, MBO, TMAD, HPT and BIT are used primarily for preservation solutions in in paint, coatings and construction industry, as protective agents for liquids in cooling and processing systems, and as protective agents for metalworking fluids. They are also used in water treatment and as slimicides.



# Biocides for water-based formulations in coatings and building materials

## In-can and film preservation | balanced preservation systems by Vink Chemicals

There is a number of factors to consider when choosing a suitable preservative for your product - different ingredients, pH value, compatibility, legal approvals and climate conditions - to list a few.

The large number of possible microorganisms, different packaging and storing conditions, and the enormous diversity of raw materials imposes demands that cannot be covered by just one microbial active used at an acceptable dosage.

With our comprehensive Vinkocide, Promex, parmetol and grotan brands, Vink Chemicals has developed sophisticated multicomponent preservative systems to confer the right protection to your products. The optimum combination of selected active substances offers sustainable preservation for all kinds of water-based formulations used in coatings, building materials and other technical products.

For the optimised use of Vinkocide, Promex, parmetol and grotan preservatives under economical and ecological aspects and for cost savings Vink Chemicals offers comprehensive technical support as well as microbiological services.

BIT = 1,2-benzisothiazol-3(2H)-one  
BAC = alkyl dimethylbenzylammonium chloride, C<sub>12</sub>-C<sub>18</sub>  
CMIT / MIT = Mixture of 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one  
MIT = 2-Methyl-2H-isothiazol-3-one  
OIT = 2-Octyl-2H-isothiazol-3-one  
BBIT = 2-n-butyl-benzodijisothiazol-3-one  
BNP = 2-bromo-2-nitropropane-1,3-diol  
EDDM = (ethylenedioxy)dimethanol  
TMAD = Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione  
BDA = N-(3-aminopropyl)-N'-dodecylpropane-1,3-diamine  
BAC = Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-16))  
DBNPA = 2,2-dibromo-2-cyanoacetamide  
NaPt = sodium Pyrithione  
NaBz = sodium benzoate  
PS = potassium sorbate

Product		Technical properties			Actives													
		Appearance	Max. manufacturing temperature (°C)	pH-range for application	BAC	BBIT	BDA	BIT	BNP	CMIT/ MIT	DBNPA	EDDM	MIT	NaBz	NaPt	OIT	PE	PS
In-can preservation (PT 6) <sup>2)</sup>																		
	grotan TK 6	Liquid	80	3 – 11														x
	s&m Phenoxyethanol	Liquid	100	< 12												x		
	Vinkocide BAC 50	Liquid	100	3 – 11	x													
	Vinkocide BDA 30	Liquid	80	3 – 11			x											
	Vinkocide BIT 10	Liquid	100	3 – 13				x										
	Vinkocide BIT 20 D	Dispersion	100	3 – 13				x										
	Vinkocide BND 20	Liquid	60	3 – 8					x									
	Vinkocide CMI 1.5 / 1.5 M <sup>1)</sup>	Liquid	60	3 – 9						x								
	Vinkocide DBNPA 20	Liquid	60	4 – 9							x							
	Vinkocide MIT 10 <sup>1)</sup>	Liquid	60	2 – 9								x						
	Vinkocide NaPt 40	Liquid	100	4 – 10										x				
	Vinkocide OIT 8 <sup>1)</sup>	Liquid	80	2 – 10											x			
	grotan BA 21	Liquid	80	3 – 11			x	x										
	parmetol BPX	Liquid	80	3 – 11		x	x									x		
	parmetol MBX <sup>1)</sup>	Liquid	80	3 – 10			x	x				x						
	parmetol N 20	Liquid	100	3 – 6.5						x					x			
	parmetol PSG <sup>3)</sup>	Liquid	80	3 – 11									x				x	
	parmetol SBX	Liquid	60	4 – 10			x	x						x				
	Promex CHS <sup>3)</sup>	Liquid	80	3 – 12						x		x						
	Vinkocide BF 56	Liquid	60	3 – 8				x					x					
	Vinkocide BO <sup>1)</sup>	Liquid	60	3 – 9					x						x			
	Vinkocide CMIB types	Liquid	60	3 – 9					x	x								

■ single active      ■ combination product

Product properties					Recommended uses and Features									Recommended use concentration (%)		Product		
Bactericide	Fungicide	Levurocide	Algaecide	Formaldehyde-free	Paints	Varnishes	Inks	Glues / Adhesives	Caulks / Sealants	Polymer Emulsions	Fast acting	Long-lasting	Headspace Protection	Range				
In-can preservation (PT 6) <sup>2)</sup>																		
x					x	x	x	x	x	x	x	x	x	0.10 – 0.20	grotan TK 6			
x	x	x		x	x	x	x	x	x	x		x		0.50 – 1.00	s&m Phenoxyethanol			
x	x	x	x	x							x	x		0.05 – 0.50	Vinkocide BAC 50			
x		x		x	x	x				x	x			0.05 – 0.30	Vinkocide BDA 30			
x	x	x		x	x	x	x	x	x	x		x		0.10 – 0.40	Vinkocide BIT 10			
x	x	x		x	x	x		x	x	x		x		0.05 – 0.20	Vinkocide BIT 20 D			
x				x	x	x	x	x	x	x	x			0.05 – 0.25	Vinkocide BND 20			
x	x	x		x	x	x	x	x	x	x	x			0.10 – 0.25	Vinkocide CMI 1.5 / 1.5 M <sup>1)</sup>			
x	x	x	x	x	x	x	x	x	x	x	x			0.02 – 0.20	Vinkocide DBNPA 20			
x	x	x		x	x	x	x	x	x	x		x		0.10 – 0.40	Vinkocide MIT 10 <sup>1)</sup>			
x	x	x		x	x	x		x	x	x		x		0.10 – 0.25	Vinkocide NaPt 40			
	x	x		x	x	x	x	x	x	x		x		0.01 – 0.03	Vinkocide OIT 8 <sup>1)</sup>			
x	x	x		x	x	x		x	x	x	x	x		0.05 – 0.30	grotan BA 21			
x	x	x		x	x	x		x		x		x		0.50 – 1.00	parmetol BPX			
x	x	x		x	x	x		x	x	x	x	x		0.10 – 0.40	parmetol MBX <sup>1)</sup>			
x	x	x		x			x	x		x		x		0.30 – 2.00	parmetol N 20			
x	x	x		x	x	x		x	x	x	x	x		0.05 – 0.20	parmetol PSG <sup>3)</sup>			
x	x	x			x	x	x	x	x	x	x	x	x	0.10 – 0.30	parmetol SBX			
x	x	x			x		x	x	x	x	x	x	x	0.20 – 0.40	Promex CHS <sup>3)</sup>			
x	x	x		x	x	x	x	x	x	x	x			0.05 – 0.30	Vinkocide BF 56			
x	x	x		x	x	x	x	x	x	x	x			0.10 – 0.30	Vinkocide BO <sup>1)</sup>			
x	x	x		x	x	x	x	x	x	x	x			0.10 – 0.30	Vinkocide CMIB types			

## Product benefits of grotan, parmetol, Promex and Vinkocide at a glance:

- broad, balanced spectrum of efficacy against bacteria, yeast and mould
- liquid, stabilised formulations
- easy handling, safe application
- sustainable efficiency even at higher pH values and temperatures
- compliance with legal requirements, e.g. BPR, REACh, TRGS 611, etc.

<sup>1)</sup> H317 labelling of the preserved end product within the recommend use concentration range.

<sup>2)</sup> Status as of January 2023 given in good faith with the best of our knowledge. Further product groups on request.

<sup>3)</sup> Non-EU

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 in different scenarios.

We are continuously on new trends, combining actives and molecules and creating new formulations for better product protection, optimized dosages and regulatory compliance.

Monitor the hygiene standard of your technical products and installation in an easy, safe and fast way.

Hygiene Testing		
Germcount™ combi dipslide	10 / Pack	

BIT = 1,2-benzisothiazol-3(2H)-one  
BAC = alkyl dimethylbenzylammonium chloride, C<sub>12</sub>-C<sub>18</sub>  
CMIT / MIT = Mixture of 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one  
MIT = 2-Methyl-2H-isothiazol-3-one  
OIT = 2-Octyl-2H-isothiazol-3-one  
BBIT = 2-n-butyl-benzof[d]isothiazol-3-one  
BNP = 2-bromo-2-nitropropane-1,3-diol  
EDDM = (ethylenedioxy)dimethanol  
TMAD = N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine  
BAC = Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-16))  
DBNPA = 2,2-dibromo-2-cyanoacetamide  
NaPt = sodium Pyrrhione  
GDA = glutaral  
NaBz= sodium benzoate  
PS = potassium sorbate

Product		Technical properties			Actives															
		Appearance	Max. manufacturing temperature (°C)	pH-range for application	BIT	BDA	CMIT/ MIT	EDDM	Formaldehyde	GDA	IPBC	MIT	NaPt	OIT	PE	TMAD	ZnPt	Carbendazim	DCOIT	Diuron
In-can preservation (PT 6) <sup>2)</sup>																				
	Vinkocide CMIF 35 <sup>1)</sup>	Liquid	60	3 – 10			x	x												
	Vinkocide CMIIF-N 20 <sup>1)</sup>	Liquid	60	3 – 9			x								x					
	Vinkocide CMIK 10 <sup>1)</sup>	Dispersion	60	3 – 9	x		x													
	Vinkocide CMIK 10 New	Dispersion	60	3 – 9	x		x													
	Vinkocide ECO 26 <sup>1) 3)</sup>	Liquid	60	3 – 10			x		x											
	Vinkocide I 20	Liquid	40	4 – 10						x				x						
	Vinkocide KC-N <sup>1)</sup>	Dispersion	60	2 – 9	x		x								x					
	Vinkocide KN	Liquid	90	4 – 13	x							x								
	Vinkocide KO <sup>1)</sup>	Dispersion	80	3 – 10	x								x							
	Vinkocide KTL <sup>1)</sup>	Liquid	80	3 – 10	x							x								
	Vinkocide KTL 55 <sup>1)</sup>	Liquid	80	3 – 10	x							x								
	Vinkocide OF <sup>1)</sup>	Liquid	60	3 – 11				x						x						
	Vinkocide OI <sup>1)</sup>	Liquid	40	2 – 10						x				x						
	Vinkocide ZK 5	Dispersion	80	4 – 9	x											x				
Dry-film preservation (PT 7) <sup>2)</sup>																				
	parmetol S 15 <sup>1)</sup>	Liquid	80	3 – 8.5														x		
	Vinkocide IPBC 30	liquid	60	4-10						x										
	Vinkocide X 10 S <sup>1)</sup>	Liquid	80	3 – 8.5														x		
	Vinkocide CD 30 <sup>3)</sup>	Dispersion	80	3 – 13													x		x	
	Vinkocide CDO <sup>3)</sup>	Dispersion	80	3 – 11									x				x		x	
	parmetol CF 8	Dispersion	100	3 – 10												x				x
	Vinkocide OI <sup>1)</sup>	Liquid	40	2 – 10						x			x							
System cleaners <sup>2)</sup>																				
	grotanol 3025 <sup>1)</sup>	Liquid	N/A	N/A			x			x										
	grotanol FF 1 N	Liquid	N/A	N/A	x	x						x								
	Vinkoclean SR 1/ SR 3 <sup>4)</sup>	Liquid	N/A	N/A																

single active

combination product

Product properties						Recommended uses and Features									Recommended use concentration (%)			Product
Bactericide	Bactericide	Fungicide	Levurocide	Algaecide	Formaldehyde-free	Paints	Varnishes	Inks	Glues / Adhesives	Caulks / Selants	Polymer Emulsions	Fast-acting	Long-lasting	Headspace Protection	Range			
In-can preservation (PT 6) <sup>2)</sup>																		
x	x	x	x			x	x	x	x	x	x	x		x	0.05 – 0.20	Vinkocide CMIF 35 <sup>1)</sup>		
x	x	x	x			x	x	x	x	x	x	x		x	0.05 – 0.20	Vinkocide CMIF-N 20 <sup>1)</sup>		
x	x	x	x		x	x	x	x	x	x	x	x	x		0.10 – 0.20	Vinkocide CMIK 10 <sup>1)</sup>		
x	x	x	x		x	x	x	x	x	x	x	x	x		0.10 – 0.30	Vinkocide CMIK 10 New		
x	x	x	x			x	x	x	x	x	x	x		x	0.05 – 0.20	Vinkocide ECO 26 <sup>1) 3)</sup>		
x		x	x		x	x	x	x	x	x	x		x		0.025 – 0.125	Vinkocide I 20		
x	x	x	x			x	x	x	x	x	x	x	x	x	0.05 – 0.40	Vinkocide KC-N <sup>1)</sup>		
x	x	x	x		x	x	x	x	x	x	x		x		0.10 – 0.20	Vinkocide KN		
x	x	x	x		x	x	x	x	x	x	x		x		0.10 – 0.20	Vinkocide KO <sup>1)</sup>		
x	x	x	x		x	x	x	x	x	x	x		x		0.20 – 0.40	Vinkocide KTL <sup>1)</sup>		
x	x	x	x		x	x	x	x	x	x	x		x		0.10 – 0.20	Vinkocide KTL 55 <sup>1)</sup>		
x	x	x	x			x	x	x	x	x	x	x		x	0.10 – 0.15	Vinkocide OF <sup>1)</sup>		
x		x	x		x	x	x	x	x	x	x		x		0.15 – 2.00	Vinkocide OI <sup>1)</sup>		
	x	x	x		x	x			x	x	x		x		0.10 – 0.30	Vinkocide ZK 5		
Dry-film preservation (PT 7) <sup>2)</sup>																		
		x		x	x	x	x			x			x		0.50 – 2.00	parmetol S 15 <sup>1)</sup>		
		x			x	x				x			x		0.30 - 2.70	Vinkocide IPBC 30		
		x		x	x	x	x			x	x		x		0.50 – 2.00	Vinkocide X 10 S <sup>1)</sup>		
		x		x	x	x				x	x		x		0.30 – 2.00	Vinkocide CD 30 <sup>3)</sup>		
		x		x	x	x				x	x		x		0.20 – 2.00	Vinkocide CDO <sup>3)</sup>		
		x		x	x	x				x			x		0.20 – 2.00	parmetol CF 8		
		x	x		x	x	x	x	x	x	x		x		0.15 – 2.00	Vinkocide OI <sup>1)</sup>		
System cleaners <sup>2)</sup>																		
x	x	x	x		x										0.5 – 2.00	grotanol 3025 <sup>1)</sup>		
x	x	x	x												1.00 – 3.00	grotanol FF 1 N		
x	x	x	x		x										contact us	Vinkoclean SR 1 / SR 3 <sup>4)</sup>		

Industrial Hygiene

Individual tailored industrial hygiene advice from Vink Chemicals´ team of experts on site ensures that biocides are used effectively. Optimizing the biocidal dosage, leads to saving money and protecting the environment. For that, it is essential to combat harmful biofilms in production plants, by applying effective cleaning and disinfection measures. We advise you on general industrial hygiene and support with regular hygiene monitoring.

<sup>1)</sup> H317 labelling of the preserved end product within the recommend use concentration range.

<sup>2)</sup> Status as of January 2023 given in good faith with the best of our knowledge. Further product groups on request.

<sup>3)</sup> Non-EU

<sup>4)</sup> Biocide-free



# All-in-one-Service

Vink Chemicals designs your individual service package



Raw material procurement



Service & consulting



Industrial hygiene

Technical advice is an integral part of our customer service. Vink Chemicals offers you a complete, individually tailored package for optimum preservation – from the identification of the microbial contamination to a concept for your plant hygiene.

We support you with microbiological tests and laboratory services, technical and regulatory advice, logistics support, raw material procurement, research and development and many other services related to biocides and operational hygiene – all from a single source.

In particular, our expertise in toxicology and eco-toxicology as well as all aspects of the correct, efficient and economical use of biocides will help you to realise a tailor-made cleaning and preservation concept for your application.

We supply your individual biocide formulations, raw materials and specialty chemicals worldwide in all required quantities and in standard container sizes.



Microbiological tests



Research & development



Analytical service

## Worldwide delivery

Vink Chemicals offers logistics support and worldwide delivery of bio-cides 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.



130+ specialists worldwide

Laboratories in Germany, France and China

Own R&D department and laboratories  
with over 30 years of experience

Worldwide distribution network

# System cleaner

„Cleaning is the beginning, not the end, of the production cycle“

A good and efficient hygiene concept is a prerequisite of every chemical manufacturer. Doing so minimizes the final cost of the product and helps to ensure that a quality product is manufactured and delivered.

Vink Chemicals has developed the system cleaners Vinkoclean SR 1 and Vinkoclean SR 3 (biocide-free) as well as grotanol range (biocidal product), which reliably remove biofilms and microbes, sludges and other contaminants.

## Biocidal solutions:

Ensuring reliable product quality also includes a regular cleaning and microbiological sanitation of the production plant, surfaces and apparatus. Vink Chemicals offers under the brand name grotanol several system cleaners which provide good immediate effects at a low use concentration. They have a broad spectrum of effect against bacteria, yeasts and moulds.

## Biocide-free solutions:

Optimal plant hygiene can improve the effectiveness of biocides. That saves money and reduces environmental impact. Hygiene also includes the control of harmful biofilms in production systems. Effective cleaning measures can reduce their growth. For this purpose we offer the system cleaners Vinkoclean SR 1 and Vinkoclean SR 3, which can be used alone or in combination with biocidal components, as needed. They are used for regular cleaning of production systems based on materials, operating parameters and the degree of infestation.

Their outstanding cleaning performance removes dirt, bacterial slime, moulds and yeast colonies. Containers and lines are also effectively cleaned at inaccessible locations. When correctly selected and implemented, system cleaners minimise the germ load that is present in production processes for paints and coatings. This basis enables the efficient use of the necessary biocidal formulations for product preservation.



# Production hygiene

## Vink Chemicals system cleaning solutions

### Biocidal system cleaners

#### grotanol SR 2

##### Active ingredients

- MBO
- Sodium salt (NaPt)

##### Benefits

- High concentrated and free of water
- Broad, balanced efficacy against bacteria, yeasts and moulds
- Excellent cleaning and microbicidal efficacy
- Low foaming
- Fulfils the requirements of the EN 1275
- BPR-application\*: PT 2 + PT 13

##### Technical properties

- Maximum manufacturing temperature: 60 °C
- Max. pH-value of end product: < 11
- Shelf life: 24 months

#### grotanol FF 1 N

##### Active ingredients

- BIT
- BDA
- Sodium salt (NaPt)

##### Benefits

- Smart combination of actives
- Broad, balanced efficacy against bacteria, yeasts and moulds
- Excellent cleaning and microbicidal efficacy
- Low foaming
- Free of AOX and formaldehyde
- BPR-application\*: PT 13

##### Technical properties

- Maximum manufacturing temperature: 60 °C
- Max. pH-value of end product: < 12
- Shelf life: 18 months

#### grotanol 3025

##### Active ingredients

- Glutaral
- CMIT/MIT

##### Benefits

- Water based combination of actives
- Excellent bactericidal efficacy (incl. sulphate-reducing bacteria)
- Good head space protection
- Eminently suitable for disinfection and sanitation of contaminated plants
- Free of VOC and formaldehyde releasers
- BPR-application\*: PT 2

##### Technical properties

- Maximum manufacturing temperature: 50 °C
- Max. pH-value of application: < 8.5
- Shelf life: 36 months

### Biocide-free system cleaners

#### Vinkoclean SR 1

##### Active ingredients

- Alkaline

##### Benefits

- All-in-one cleaner with a broad range of applications
- Good cleaning efficacy
- Economic usage
- Only short interruption of production
- Easy to rinse off
- Contain bio dispersants

##### Technical properties

- Maximum manufacturing temperature: Room temperature
- Max. pH-value of end product: n.n.
- Shelf life: 18 months

#### Vinkoclean SR 3\*

##### Active ingredients

- Acidic

##### Benefits

- All-in-one cleaner with a broad range of applications
- Good cleaning efficacy
- Economic usage
- Only short interruption of production
- Easy to rinse off
- Contain bio dispersants

\*Vinkoclean SR3 is **not suitable for use in metalworking fluid applications** due to material incompatibility with acids!



Vink Chemicals GmbH & Co. KG

Eichenhöhe 29

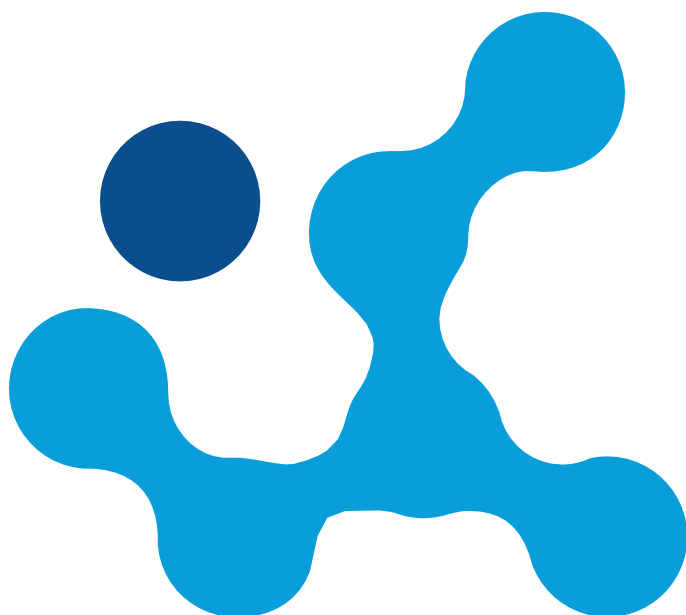
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[www.vink-chemicals.com](http://www.vink-chemicals.com)



A Team with Our Customers

Our recommendations regarding our products are given in good faith, but imply no corresponding liability.  
The products shown in our portfolio do not imply any biocidal product registration in any specific country.  
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.