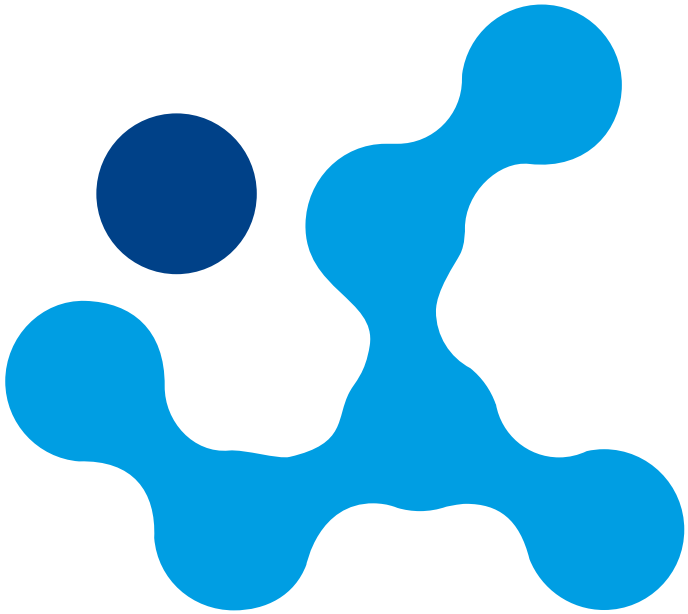


Preservation for Household Products

VINK CHEMICALS

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!

All-in-one-Service

Vink Chemicals designs your individual service package

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.

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 you individual biocide formulations based on our proprietary active substances CMIT/MIT, MIT, MBO, TMAD, HPT and BIT and others, raw materials and specialty chemicals worldwide in all required quantities and in standard container sizes.

Microorganisms

A threat to your products and plant

Household products involve a large variety of formulations like all purposes cleaners, maschine dish washing liquids, laundry detergents and window cleaners. Often microorganisms find an attractive environment to grow in such water-based matrices.

Microbial contamination and subsequent spread of bacteria, yeasts and moulds can therefore hardly be avoided.

As a result of their high growth potential, microbes can multiply within a few hours from 100 to 10,000,000 organisms per ml.

The presence of microbial contamination alters the composition of the water-based household product, changing its properties. Microorganisms may excrete metabolites that decrease the pH value and cause unpleasant odours.

Uninhibited growth can lead to the formation of biofilms in the system. These can grow to a thickness of several centimetres and result in blockages of pumps and filtration units.

The signs of microbial contamination in household products:

- Changes on the viscosity (thinner or thicker)
- Phase separation
- biogenic pH reduction
- destabilization of the formulation
- odour / gas production
- Colour changes
- Visible surface microbial growth

Preservation for Household Products

There is a number of factors to consider when choosing a suitable preservative for your product; different ingredients, pH value, material compatibility and legal approvals, to name 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 the comprehensive grotan®, parmetol®, grotanol® and Vinkocide® product line, Vink Chemicals has developed sophisticated multi component preservative systems to sufficiently protect your products.

The optimum combination of selected active substances offers sustainable preservation for all kinds of water-based formulations used in household products. Our biocides act rapidly and effectively, without altering the specific properties of the product. The protection against microbiological damage is lasting and resistant to operational temperatures and the effect of organic and inorganic substances.

Our preservatives have good material compatibility and meet international legal requirements; e.g. in the countries of the European Union (EU) our products are supported underthe Biocide Product Regulation (BPR) and REACH.

Preservation for Household Products

Product		Technical properties			Actives						Product Properties			
		Appearence	Max. manufacturing temperature (°C)	pH-range for application	BIT	BNP	CMIT/MIT	DBNA	OIT	PE	Bacteria	Yeasts	Moulds	Formaldehyde-free
In-can preservation (PT 6)														
	parmetol® D 11	liquid	100	3 - 11	x						x	x	x	x
	parmetol® K 6	liquid	40/60*	3 - 8.5			x				x	x	x	x
	s&m Bronopol	solid	40	3 - 8.0		x					x			x
	s&m Phenoxyethanol	liquid	> 100	< 12						x	x	x	x	x
	Vinkocide® BIT 20 G	liquid	< 80	3 - 13	x						x	x	x	x
	Vinkocide® BND 20	liquid	< 40	3 - 8		x					x			x
	Vinkocide® CMI 1.5	liquid	< 40	3 - 8.5			x				x	x	x	x
	Vinkocide® DBNPA 20 / Vinkocide® DBNPA 20 B	liquid	25	7 - 9				x			x	x	x	x
	Vinkocide® OIT 8 / Vinkocide® OIT 45	liquid	50	2 - 10					x				x	x

single active combination product

Recommended applications											Recommended use concentration (%)	Product	
Liquid detergents	Liquid detergents, highly alkaline (>10)	Liquid laundry detergents	Liquid laundry fabric softener	Liquid scouring cleansers	Window cleaners	Wet wipes	Wax emulsions	System cleaner for production plants	Shoes polishes	Enzyme containing cleansers	Range		
In-can preservation (PT 6)													
x	x	x	x	x	x		x			x	0.1 – 0.4	parmetol® D 11	
x		x	x	x	x	x	x				0.05 – 0.2	parmetol® K 6	
x		x	x		x		x			x	0.02 – 0.1	s&m Bronopol	
x		x	x	x	x	x		x		x	0.5 – 1.0	s&m Phenoxyethanol	
							x		x	x	0.05 – 0.2	Vinkocide® BIT 20 G	
			x	x	x				x		0.05 – 0.2	Vinkocide® BND 20	
			x	x	x						0.1 – 0.25	Vinkocide® CMI 1.5	
										x	0.001 – 0.25	Vinkocide® DBNPA 20 / Vinkocide® DBNPA 20 B	
							x			x	0.015 – 0.025 / 0.2 – 0.5	Vinkocide® OIT 8 / Vinkocide® OIT 45	

BDA = N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine
BIT = 1,2-Benzisothiazol-3(2H)-one
BNP = Bronopol
CMIT/MIT = reaction mass of 5-chloro-2- methyl-2Hisothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)
GDA = Glutaraldehyde
MIT = 2-Methyl-2H-isothiazol-3-one
NaPt = Pyridine-2-thiol-1-oxide, Sodium salt
BBIT = 2-n-butyl-benzo[d]isothiazol-3-one
OIT = 2-Octyl-2H-isothiazol-3-one
PE = Phenoxyethanol

Preservation for Household Products

Product		Technical properties			Actives									Product properties			
		Appearence	Max. manufacturing temperature (°C)	pH-range for application	BBIT	BDA	BIT	BNP	CMIT/MIT	MIT	NaPt	OIT	PE	Bacteria	Yeasts	Moulds	Formaldehyde-free
In-can preservation (PT 6)																	
	grotan® BA 21	liquid	100	3 - 11		x	x							x	x	x	x
	parmetol® A 28 / parmetol® A 28 S	liquid	40/60*	3 - 8.5				x	x					x	x	x	x
	parmetol® MBX	liquid	80	3 - 10		x	x			x				x	x	x	x
	parmetol® N 20	liquid	60	3 - 8.5				x				x		x	x	x	x
	parmetol® SBX	liquid	80	3 - 11		x	x				x			x	x	x	x
	parmetol® BPX	liquid	80	3 - 11	x	x							x	x	x	x	x
	Vinkocide® BIT PE	liquid	60	2 - 10			x						x	x	x	x	x
	Vinkocide® BND / s&m bronopol	liquid	40	3 - 8				x						x			
	Vinkocide® BO 313	liquid	< 40	3 - 8				x		x				x	x	x	x
	Vinkocide® BTL	liquid	< 45	3 – 8.5				x	x					x	x	x	x
	Vinkocide® CMIB-Types	liquid	< 45	3 - 8.5			x		x					x	x	x	x
	Vinkocide® CMIK 10 new	liquid	< 45	3 - 8.5			x		x					x	x	x	x

single active combination product

Recommended applications											Recommended use concentration (%)	Product	
Liquid detergents	Liquid detergents, highly alkaline (>10)	Liquid laundry detergents	Liquid laundry fabric softener	Liquid scouring cleansers	Window cleaners	Wet wipes	Wax emulsions	System cleaner for production plants	Shoes polishes	Enzyme containing cleansers	Range		
In-can preservation (PT 6)													
x	x	x	x	x	x	x	x			x	0.05 – 0.4	grotan® BA 21	
x		x	x	x	x	x	x				0.03 – 0.15 / 0.03 – 0.30	parmetol® A 28 / parmetol® A 28 S	
x	x	x	x	x	x	x	x			x	0.05 – 0.4	parmetol® MBX	
x		x	x	x	x	x	x			x	0.1 – 0.3	parmetol® N 20	
x	x	x	x	x	x	x	x			x	0.05 – 0.2	parmetol® SBX	
x	x	x	x	x	x	x	x	x		x	0.3 – 1.0	parmetol® BPX	
											0.25 -1.00	Vinkocide® BIT PE	
x		x	x	x	x		x				0.02 - 0.1	Vinkocide® BND / s&m bronopol	
			x	x	x						0.1 – 0.3	Vinkocide® BO 313	
			x	x	x						0.05 – 0.25	Vinkocide® BTL	
			x	x	x						0.1 – 0.2	Vinkocide® CMIB-Types	
			x	x	x						0.1 – 0.2	Vinkocide® CMIK 10 new	

BDA = N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine
BIT = 1,2-Benzisothiazol-3(2H)-one
BNP = Bronopol
CMIT/MIT = Mixture of 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2Hisothiazol-3-one
GDA = Glutaraldehyde
MIT = 2-Methyl-2H-isothiazol-3-one
NaPt = Pyridine-2-thiol-1-oxide, Sodium salt
BBIT = 2-n-butyl-benzo[d]isothiazol-3-one
OIT = 2-Octyl-2H-isothiazol-3-one
PE = Phenoxyethanol

Preservation for household products

Product	Technical properties			Actives											
	Appearence	Max. manufacturing temperature (°C)	pH-range for application	BAC	BIT	BNP	CMIT/MIT	EDDM	EUF	GDA	IPBC	MBO	MIT	NaBz	OIT
In-can preservation (PT 6)															
Vinkocide® KTL / Vinkocide® KTL 55 / Vinkocide® KTL 95	liquid	50	3 – 11		x								x		
Vinkocide® KTLB	liquid	40	3 - 8.5		x	x							x		
Vinkocide® OI	liquid	40	2 - 10								x				x
Extended product range (non-EU)															
parmetol® K 20 / parmetol® K 40	liquid	40/60*	3 - 8.5				x								
parmetol® A 26 N	liquid	40/60*	3 - 9.5				x		x						
parmetol® DF 35 N	liquid	40/60*	3 - 10				x		x						
Vinkocide® CMIF	liquid	40/60*	3 - 9				x	x							
Production hygiene [2)]															
grotanol® SR 2	liquid	room temperature	n.a		x							x		x	
grotanol® 3025 *(EU-wide approval)*	liquid	room temperature	n.a				x			x					
Vinkocide® BAC 50	liquid	room temperature	n.a	x											

single active combination product

Product properties				Recommended applications					Recommended use concentration (%)	Product	
Bacteria	Yeasts	Moulds	Formaldehyde-free	Wet wipes	Wax emulsions	Shoes polishes	System cleaner for production plants	Enzyme containing cleansers	Range		
In-can preservation (PT 6)											
x	x	x	x		x			x	0.2 – 0.4 / 0.1 – 0.2 / 0.05 - 0.2	Vinkocide® KTL / Vinkocide® KTL 55 / Vinkocide® KTL 95	
x	x	x	x		x				0.1 – 0.3	Vinkocide® KTLB	
		x	x		x			x	0.15 – 0.25	Vinkocide® OI	
Extended product range (non-EU)											
x	x	x	x						0.05 – 0.50	parmetol® K 20 / parmetol® K 40	
x	x	x		x	x				0.05 – 0.2	parmetol® A 26 N	
x	x	x		x	x				0.05 – 0.2	parmetol® DF 35 N	
x	x	x		x	x				0.05 – 0.2	Vinkocide® CMIF	
Production hygiene [2)]											
									0.25 – 0.75	grotanol® SR 2	
			x						0.5 – 3.0	grotanol® 3025 *(EU-wide approval)*	
			x						min. 0.4	Vinkocide® BAC 50	

Vink Chemicals´ production hyiene concept:

Assuring the quality of raw materials, finished products and installation is an essential part of a successful housekeeping. This routine hygiene control program is based on hygiene standards and always include regular testing for microbial growth, for example by using dipslides.

Use Germcount™ combi dipslide as an easy, safe and fast way to complement the efficient use of biocides.

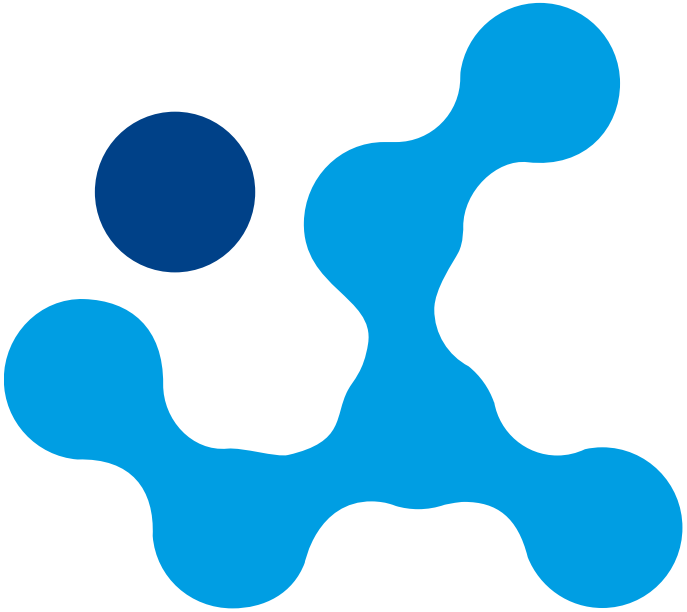
Hygiene Testing	
Germcount™ combi dipslide	10 / Pack

Contact us to know more our production hygiene concept.

BDA = N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine
BIT = 1,2-Benzisothiazol-3(2H)-one
BNP = Bronopol
CMI/MIT = Mixture of 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one
GDA = Glutaraldehyde
MIT = 2-Methyl-2H-isothiazol-3-one
NaPt = Pyridine-2-thiol-1-oxide, Sodium salt
BBIT = 2-n-butyl-benzo[d]isothiazol-3-one
OIT = 2-Octyl-2H-isothiazol-3-one
PE = Phenoxyethanol

[1)] Status as of June 2024 given in good faith with the best of our knowledge. Further product groups on request.

[2)] PT2 (surface desinfection)



PRESERVED TO LAST

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