

parmetol[®] MBX

Post treatment preservative (biocide) for coolants (metal working fluids)

- Synergistic working combination of benzisothiazolone (BIT), methylisothiazolon (MIT) and bis(3-aminopropyl)dodecylamine (BDA)
- Fast acting and long-term protection
- Improved efficacy with IPBC, Phenoxy ethanol and propanol
- Free of chloromethylisothiazolone, formaldehyde, formaldehyde depots and other aldehydes
- Contains no nitrate, nitrosing agents or organically bound chlorine (has no effect on the AOX value)

Active substance

EINECS-Name:	CAS-No.	EC-No.
1,2-Benzisothiazol-3(2H)-one	2634-33-5	220-120-9
2-methyl-2H-isothiazol-3-one (MIT)	2682-20-4	220-239-6
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)	2372-82-9	219-145-8

Physico-chemical properties

Colour	light yellow - orange
Form	Liquid
Odour	amine-like
Density (20 °C)	1.009 - 1.021 g/ml
Refractive index	1.345 - 1.357
Initial boiling point	ca. 100 °C
Flash point (ISO 2719)	> 100 °C
Flow time (DIN 53211 - 20 °C)	< 15 s
Viscosity (20 °C)	3 mPa*s
Water solubility (20 °C)	in all proportions
VOC-Content to Directive 2004/42/EC	none
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pH (concentrate)	ca. 8 - 9

Fields of application

Germ count monitoring by using mikrocount[®] combi. For exact dosing guidelines please consult your coolant (metal working fluid) supplier. Limits for labelling can be seen from the separate schülke labelling sheet.

Use biocides safely. Always read the label and product information before use.

	Recommended dosage	
Sanitation	2.0 - 4.0 g/kg Addition to be made directly into the central coolant (metal working fluid) system	(0.20 - 0.40 %)
Post treatment	1.0 - 2.0 g/kg Addition to be made directly into the central coolant (metal working fluid) system	(0.10 - 0.20 %)

Indications for use

Solubility(ies)	Fully soluble in water
Recommended use pH range	3 - 10
Maximum use temperature	max. 80 °C
Additional advice	Aldehydes should be avoided as they cause decomposition of the active substances. When adding parmetol [®] MBX, it should be added at a point with good turbulence in order to ensure good distribution in the system. Before refilling the plant, system cleaning is recommended (e.g. with grotanol [®] FF 1 N). Cleaning of equipment is possible by rinsing with water.

Microbiological efficacy

The efficacy of the product has been tested against the following microorganisms according to DGHM (German Society for Hygiene and Microbiology). Determination of the minimum inhibitory concentration in the serial dilution test produced the following values (MIC in % of the product):

Bacteria (gram-negative)	MIC	Bacteria (gram-positive)	MIC	Yeasts	MIC
<i>Escherichia coli</i>	0.031	<i>Staphylococcus aureus</i>	0.031	<i>Candida albicans</i>	0.016
<i>Pseudomonas aeruginosa</i>	0.031	<i>Kocuria rhizophila</i>	0.008		
				Moulds	MIC
				<i>Aspergillus brasiliensis</i>	0.063
				<i>Penicillium pinophilum</i>	0.016
				<i>Fusarium oxysporum</i>	0.016

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Compatibility*		
	compatible	to be avoided
concentrate	high-alloyed stainless steel (e. g. 1.4571), steel, ethylene-propylene-terpolymer (EPDM), nitrile rubber, fluorinated rubber (FKM), natural rubber, polyethylene, polyvinylchloride, polystyrene (PS)	copper, brass, sealants and plastics other than mentioned
aqueous dilution (0.2 %)	No significant difference to water	Water incompatible materials

*Compatibility has to be proved in each case

Labelling	
Hazard statements	H314, H317, H332, H410
Precautionary statements	P273, P280, P301 + P330 + P331, P303 + P361 + P353, P305 + P351 + P338, P310
Labelling	Danger - GHS05 (Corrosion), GHS07 (Exclamation mark), GHS09 (Environment)
	For further hazard instructions and safety advice please refer to the actual material safety data sheet.

Environmental information
 parmetol[®] MBX contains only biodegradable components. Dilutions of parmetol[®] MBX do not normally interfere with the operation of waste water treatment plants. The canisters and drums used by schülke are made of polyethylene (HDPE) and are labelled accordingly. The 1000 kg containers are covered by a return scheme that ensures collection of the used containers free of charge and appropriate reuse all over Europe. The labels are made of PE. schülke packaging materials contain no PVC and can be recycled. For further information please ask for our detailed environmental report.

Listings and approvals of active ingredients
EINECS / ELINCS (Europe)
TSCA (USA)
DSL / NDSL (Canada)
PICCS (Philippines)
AICS (Australia)
IECSC (China)
NZIoC (New Zealand)
CSNN (Taiwan)
BfR XIV, XXXVI

Transport & Storage	
Dangerous goods	Yes
UN number	1760
Packaging group	II
Package sizes	25 kg, 200 kg, 1000 kg
Shelf life	18 months
Storage	Protect from frost, heat and direct sunlight. Store at room temperature in the original container.

schülke subsidiaries:



Certified acc. to DIN EN ISO 14001

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Our recommendations regarding our products are based on in-depth scientific testing in our Research Department; they are given in good faith, but no liability can be derived from them. It is the responsibility of the final product manufacturer to assure that claims made for the final product are in conformance with all applicable local laws. In other respect our Conditions of Sale and Supply apply. At schülke, we continually strive to make our products globally available. However, due to various factors, the availability of our products in your area may not always be guaranteed. Please contact us for more information on our product range in your country.



A company of the Air Liquide Group

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