

parmetol® SBX

Preservative for household products

- Production hygiene integrated in-can preservative
- Synergistic working combination of benzisothiazolone (BIT), Sodium Pyrithione and bis(3-aminopropyl)dodecylamine (BDA)
- Broad, balanced spectrum of effect against bacteria, yeasts and moulds
- Free of chloromethylisothiazolone, formaldehyde, formaldehyde depots and other aldehydes
- Approved for Ecolabel, e.g. "European Flower" or "Nordic Ecolabel"

Active substance			
INCI name	EINECS-Name:	CAS-No.	EC-No.
Laurylamine Dipropylendiamine	N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine	2372-82-9	219-145-8
Benzisothiazolinone	1,2-Benzisothiazol-3(2H)-one	2634-33-5	220-120-9
Sodium Pyrithione	Pyridine-2-thiol-1-oxide, sodium salt	3811-73-2	223-296-5

Physico-chemical properties	
Colour	yellow
Form	Liquid
Odour	characteristic
Density (20 °C)	ca. 1.023 - 1.035 g/cm ³
Refractive index (20 °C)	ca. 1.351 - 1.363
Initial boiling point	ca. 100 °C
Flash point (ISO 2719)	> 100 °C
Flow time (DIN 53211 - 20 °C)	< 15 s
Water solubility (20 °C)	in all proportions
Foaming characteristics	Foaming possible (in water)
VOC-Content to Directive 2004/42/EC	none

Fields of application
 The optimum use level should be evaluated by means of a repeated challenge test (e.g. at schülke Technical and Microbiological department). 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	
Washing-up liquids	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Detergent	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Liquid detergents, highly alkaline	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Liquid laundry detergents	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Fabric softener	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Liquid scouring cleansers	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Window cleaners	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Wax emulsions	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Wet wipes	0.5 - 2.0 g/kg	(0.05 - 0.20 %)
Other uses	Kindly contact us.	

Indications for use	
General Information	parmetol® SBX is fully effective in cationic and non-ionic systems. Presence of anionic substances may lead to decreased efficacy. Foaming possible
Solubility(ies)	Fully soluble in water
Discolouration	In some cases parmetol® SBX may lead to discolouration caused by e.g. metal ions that may interact with Sodium Pyrithione. We recommend lab-testing on compatibility before using at batch sizes.
Recommended use pH range	3 - 11
Maximum use temperature	max. 80 °C
Additional advice	If possible, to be incorporated at an early stage during production. 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>	0.03	<i>Staphylococcus aureus</i>	0.03	<i>Candida albicans</i>	0.06
<i>Pseudomonas aeruginosa</i>	0.06			Moulds	MIC
				<i>Aspergillus brasiliensis</i>	0.03



parmetol® SBX

Compatibility*		
	compatible	to be avoided
concentrate	high-alloyed stainless steel (e. g. 1.4571), steel, polytetrafluoroethylene (PTFE), Polyethylene, polystyrene (PS), polymethyl methacrylate (PMMA), acrylo-nitrile butadiene styrene polymer (ABS), PVC (hard), Polyoxymethylene (POM), fluorinated rubber (FKM), nitrile rubber	polycarbonate (PC), PVC (soft), natural rubber, chloroprene rubber, styrene butadiene rubber, ethylene-propylene-terpolymer (EPDM), sealants and plastics other than mentioned, copper, aluminium, zinc, brass
aqueous dilution (0.2 %)	No significant difference to water	polyamide (PA 6), acrylo-nitrile butadiene styrene polymer (ABS), brass, Water incompatible materials, otherwise see advice for the undiluted product

*Compatibility has to be proved in each case

Labelling	
Hazard statements	H290, H314, H317, 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
Dilutions of parmetol® SBX 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	Transport & Storage												
EINECS / ELINCS (Europe) TSCA (USA) DSL / NDSL (Canada) PICCS (Philippines) AICS (Australia) IECSC (China) ENCS (Japan) CSNN (Taiwan) NZIoC (New Zealand)	<table border="1"><tr><td>Dangerous goods</td><td>Yes</td></tr><tr><td>UN number</td><td>1719</td></tr><tr><td>Packaging group</td><td>II</td></tr><tr><td>Package sizes</td><td>25 kg, 200 kg, 1000 kg</td></tr><tr><td>Shelf life</td><td>18 months</td></tr><tr><td>Storage</td><td>Protect from frost, heat and direct sunlight. Store at room temperature in the original container.</td></tr></table>	Dangerous goods	Yes	UN number	1719	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.
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Ecolabel			
	Basic criteria	Product type	max. use concentration
European Flower	2011/264/EC	Laundry detergents	0.20 %
European Flower	2011/382/EC	Hand dishwashing detergents	0.20 %
European Flower	2011/383/EC	All-purpose cleaners and cleaners for sanitary facilities	0.20 %
Nordic Ecolabel	Nordic Swan	Cleaning agent	0.1 %