

# parmetol® H 10

## Preservative for household products

- Suitable for preservation of water based household products
- Broad spectrum of efficacy
- Bactericidal and fungicidal effect
- Effective in pH ranges up to 13

| Active substance | INCI name           | EINECS-Name:                          | CAS-No.:  | EC-No.:   |
|------------------|---------------------|---------------------------------------|-----------|-----------|
|                  | Sodium Pyrithione   | Pyridine-2-thiol-1-oxide, Sodium salt | 3811-73-2 | 223-296-5 |
|                  | Benzisothiazolinone | 1,2-Benzisothiazol-3(2H)-one          | 2634-33-5 | 220-120-9 |
|                  | Phenoxyethanol      | 2-Phenoxyethanol                      | 122-99-6  | 204-589-7 |

| Physico-chemical properties         |                      |
|-------------------------------------|----------------------|
| Colour                              | light yellow - brown |
| Form                                | Liquid               |
| Odour                               | characteristic       |
| Density (20 °C)                     | 1.103 - 1.114 g/ml   |
| Refractive index (20 °C)            | 1.400 - 1.411        |
| Initial boiling point               | ca. 100 °C           |
| Flash point (ISO 2719)              | > 100 °C             |
| Water solubility (20 °C)            | in all proportions   |
| VOC-Content to Directive 2004/42/EC | 10 %                 |
| pH (concentrate)                    | ca. 13               |

**Fields of application**  
 The optimum use level should be evaluated by means of a repeated challenge test (e.g. at schulke Technical and Microbiological dept). Limits for labelling can be seen from the separate schulke labelling sheet.

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

|                                    | Recommended dosage |                 |
|------------------------------------|--------------------|-----------------|
| Washing-up liquids                 | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Detergent                          | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Liquid detergents, highly alkaline | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Liquid laundry detergents          | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Liquid laundry fabric softener     | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Window cleaners                    | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Liquid scouring cleansers          | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Wet wipes                          | 0.1 - 3.0 g/kg     | (0.01 - 0.30 %) |
| Wax emulsions                      | 0.5 - 5.0 g/kg     | (0.05 - 0.50 %) |
| Shoe polishes                      | 0.5 - 5.0 g/kg     | (0.05 - 0.50 %) |
| Other uses                         | Kindly contact us. |                 |

| Indications for use      |  |
|--------------------------|--|
| General Information      | parmetol® H 10 is fully effective both in anionic as well as cationic and non-ionic systems.   |
| Solubility               | Fully soluble in water.  |
| Discolouration           | In some cases parmetol® H 10 may lead to discolouration caused by e.g. metal ions that may interact with Sodium Pyrithione.<br>We recommend lab-testing on compatibility before using at batch sizes.  |
| Recommended use pH range | max. 13  |
| Maximum use temperature  | max. 100 °C  |
| Additional advice        | If possible, to be incorporated at an early stage during production. pH, temperature and redox conditions are to be taken into consideration. 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>Burkholderia cepacia</i>    | 0.2   | <i>Kocuria rhizophila</i>    | < 0.025 | <i>Candida albicans</i>        | 0.1     |
| <i>Enterobacter gergoviae</i>  | 0.4   | <i>Staphylococcus aureus</i> | 0.1     |                                |         |
| <i>Escherichia coli</i>        | 0.1   |                              |         | Moulds                         | MIC     |
| <i>Klebsiella pneumoniae</i>   | 0.1   |                              |         | <i>Aspergillus niger</i>       | > 0.4   |
| <i>Pseudomonas aeruginosa</i>  | > 0.4 |                              |         | <i>Penicillium funiculosum</i> | < 0.025 |
| <i>Pseudomonas fluorescens</i> | 0.2   |                              |         |                                |         |
| <i>Pseudomonas putida</i>      | 0.4   |                              |         |                                |         |

# parmetol® H 10

| Compatibility*           |   |  |
|--------------------------|---|--|
|                          | compatible  | to be avoided  |
| concentrate              | high-alloyed stainless steel (e. g. 1.4571), plastics, polytetrafluoroethylene, ethylene-propylene-terpolymer, polyvinylchloride, polyethylene, polystyrene | sealants other than mentioned, metals other than mentioned, PVC (soft) |
| aqueous dilution (0.2 %) | No significant difference to water  | unprotected steel, aluminium, copper, brass                            |

\*Compatibility has to be proved in each case

| Labelling  |                          |
|--|--------------------------|
| R-phrases(s)   | R22, R34, R43            |
| S-phrases(s)   | S26, S35, S36/37/39, S45 |
| Labelling  | C (Corrosive)            |
| For further hazard instructions and safety advice please refer to the actual material safety data sheet. |                          |

**Environmental information**  
 parmetol® H 10 contains only biodegradable components. Dilutions of parmetol® H 10 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)                                   |
| ECL (Korea)                                  |
| DSL / NDSL (Canada)                          |
| ENCS (Japan)                                 |
| AICS (Australia)                             |
| PICCS (Philippines)                          |
| IECSC (China)                                |

| Transport & Storage |  |
|---------------------|--|
| 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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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.

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