

Grotan® F 15



Schülke & Mayr

TECHNICAL LEAFLET

F15

PRESERVATIVE FOR TECHNICAL PRODUCTS

- Fungicidal effect
- Broad, balanced spectrum of effect against yeasts and moulds
- Good immediate effect
- Free from nitrate, nitrosing agents, formaldehyde/ formaldehyde donor compounds

Technical data

		CAS-Nr.
Actives	3-Iodo-2-propynylbutylcarbamate	55406-53-6
Appearance	Pale yellow liquid	
Density (20 °C)	1.050 – 1.070 g/ml	
Viscosity (DIN 53 211)	Flow time approx. 29 sec (20 °C)	
Odour	Almost odourless	
Refractive index (20 °C)	1.441 – 1.453	
Boiling point	appr. 230 °C	
Flashpoint (ISO 2719)	> 100 °C	

Use concentration

	Recommended dosage	
Watermiscable metalworking fluids	0.5 – 1.0 g/kg (0.05 – 0.10 %)	The optimum use level should be evaluated by means of a repeated challenge test (e.g. BOKO-Test by S&M – Technical and Microbiological dept). <i>Use biocides safely. Always read the label and product information before use.</i>
Technical emulsions	0.5 – 1.0 g/kg (0.05 – 0.10 %)	
Aqueous systems	0.5 – 1.0 g/kg (0.05 – 0.10 %)	
Metalworking fluid concentrates (approx. 0.1% in the end dilutions)	10 – 20 g/kg (1.0 – 2.0 %)	

Instructions on application

Grotan® F 15 is suitable for the preservation of water-mixed metalworking fluids and metalworking fluid concentrates. When using in water-mixed metalworking fluids and metalworking fluid concentrates without adequate bacteriostatic effect, the use of bactericides, e.g. **Grotan® BK**, **Grotan® OF**, **Grotan® OX** or **Grotan® TK 3** is recommended. **Grotan® F 15** can be used in the pH ranges 3 to 11. **Grotan® F 15** should be incorporated at temperatures lower than 40°C in order to prevent possible losses of effect. In order to avoid microbial growth and the resultant consumption of preservative from the outset, it is advisable to add **Grotan® F 15** to the fresh mix of metalworking fluid. More can be added at weekly to fortnightly intervals, depending on the discharge of the metalworking fluid. When adding more **Grotan® F 15**, 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®**).

Microbiological efficacy

The efficacy of the product has been tested against the following microorganisms according to DGHM (German Society for Hygiene and Microbiology) – MIC in % of the product.

Fungi	MIC	Yeasts	MIC
Aspergillus niger	0.00156	Candida albicans	0.00312
Rhodotorula rubra	0.00156		
Aureobasidium pullulans	0.00078		
Fusarium oxysporum	0.00156		
Geotrichum candidum	0.00156		
Penicillium expansum	0.00312		
Penicillium funiculosum	0.00156		
Sclerophoma pityophila	0.00039		
Trichophyton mentagrophytes	0.00156		
Acremonium persicinum	0.00312		
Acremonium strictum	0.00312		

Compatibility

Material compatibility	The material compatibility tests with the concentrate of Grotan® F 15 showed good compatibility with stainless steel, copper, brass, zinc and aluminium. Grotan® F 15 proved to have good compatibility with plastics.
Sealants	Rubber-based sealants can cause yellow-red discolouration of Grotan® F 15 , so that preference should be given to the use of polytetrafluoroethylene seals (PTFE).

Safety & Labelling

R- and S-Phrases	R 41 S 39
Labelling	Xi (Irritant)
For further hazard instructions and safety advice please refer to the actual material safety data sheet.	

Environmental information

At a sufficient degree of dilution, all components of **Grotan® F 15** are completely biodegradable. Experience has shown that dilutions of **Grotan® F 15** do not interfere with the operation of municipal sewage treatment plants. **Grotan® F 15** contains no organic chlorine compounds. A slight effect on the AOX value in waste water may occur as a result of the iodine content in **Grotan® F 15**. The canisters and drums used by Schülke & Mayr are made of polyethylene (HDPE) and are labelled accordingly. The 1000 kg - containers are covered by a return scheme that in Europe ensures collection of the used containers free of charge and appropriate re-use. The labels are made of PE. S&M 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 (Canada)
AICS (Australia)
ECL (Korea)
ENCS (Japan)
Fullfills the requirements of the TRGS 611 (Germany)

Shelf life / Transport / Storage

Shelf life	18 months
Dangerous good	No
Package sizes	10 kg, 200 kg, 1000 kg
Storage	Protect from frost, heat and direct sunlight. Store at room temperature in the original container.

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Yemen · Yugoslavia



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. In other respects our Conditions of Sale and Supply apply.

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