



TROYSHIELD® PA10

Broad-spectrum fungicide for post-treatment of metalworking fluids

Description

Troyshield® PA10 is a broad spectrum, non-metallic fungicide solution which is effective against a wide variety of fungal organisms, most commonly found in metalworking fluid systems. The product is most effective against fungi-flat cake which may cause filter plugging.

Application/ Use

The problem of fungal growth is a common problem in metalworking fluids especially with biostatic, boramine containing formulations. This type of problem is even more pronounced with some new EP and anti-corrosion additives. The product has been shown to be highly efficacious in metalworking fluids such as mineral oil emulsions, mineral oil micro emulsions, semi synthetics and synthetics. It is compatible with bactericides commonly used in metalworking fluid formulations. The performance of the product is not affected by the pH range normally encountered with these products. Troyshield® PA10 is a cost effective product which imparts good protection over time, reducing the need for post addition of fungicide for the metalworking fluid in use. The product does not contribute to metal staining.

Troyshield® PA10 is suitable for a wide range of conditions and can be used at pHs from 3 to 10 and at temperatures up to 60°C.

Highlights

- Very effective against fusarium-type fungi
- Special carrier/ solvent-system to provide maximum compatibility with wide range of different metalworking fluids
- Low toxicity profile

Physical Properties

The following are typical properties of Troyshield® PA10; they are not to be considered product specifications.

Appearance: Light Yellow to Amber Liquid
 Specific Gravity, 20°C [g/ml]:app. 1.05
 Solubility: Excellent compatibility with common metalworking fluids

Antimicrobial Activity

Troyshield® PA10 has a broad spectrum of efficacy against a wide range of fungi. Examples of organisms controlled by Troyshield® PA10 are shown below

Fungi	MIC* [ppm]
<i>Alternaria alternate</i>	7
<i>Aspergillus niger</i>	7
<i>Aspergillus versicolor</i>	3
<i>Aureobasidium pullulans</i>	3
<i>Ceratocystis pilifera</i>	3
<i>Cladosporium cladosporioides</i>	7
<i>Cladosporium herbarum</i>	7
<i>Penicillium species</i>	3

* Minimum inhibitory concentration (MIC) is an indication of which microorganisms can be controlled by a preservative and the concentration at which growth of the test organism is inhibited under laboratory conditions. MIC values are expressed in parts per million (ppm). The lower the MIC value in ppm, the greater the product's effectiveness. MIC values should only be used for relative comparisons. Practical use concentrations are generally much higher and should be established through field tests and actual use.



Function/ Activity

Suggested Application Level

The use level in high mineral oil containing, semi synthetics and synthetics varies between 500 and 1000 ppm (0.05-0.1% by weight) of Troyshield® PA10 in the dilute depending on formulation and conditions of use. In order to evaluate the correct use level, it is important to carry out laboratory tests.

Formulating Considerations

Formulation Notes

- The use level of Troyshield® PA10 in formulated products is determined by the individual composition and end use pattern of the final system.
- As the active ingredient has a water solubility of app. 150 ppm, we recommend checking the physical stability of the emulsion.
- Because Troyshield® PA10 has self-emulsifiable properties, the product should be added at such a place on the central unit, that optimal incorporation is obtained.
- Troyshield® PA10 should not be mixed directly to other biocides.

Chemical Inventories

This product, or its components, are listed on, or are exempt from:

Country	Agency	Registration Numbers or Listings
United States	TSCA	All ingredients are listed or exempted
United States	EPA	5383-77
Canada	DSL	All ingredients are listed or exempted
Europe	EINECS	All ingredients are listed or exempted
China	IECSC	All ingredients are listed or exempted
Philippines	PICCS	All ingredients are listed or exempted
Australia	AICS	All ingredients are listed or exempted
Korea	ECL	All ingredients are listed or exempted
Japan	ENCS	All ingredients are listed or exempted

Labeling

EU Regulations:

All our products are classified and labeled according to European and national legislation.

For the most updated and complete information on classification and labeling, please refer to the most current Safety Data Sheet or a product label.



**Handling,
Storage, Health
and Safety**

For the handling of Troyshield® PA10, the usual precautions for biocides have to be taken. Contact with the concentrate should be avoided. When handling Troyshield® PA10, protective clothing and goggles have to be worn. If splashes get onto the skin, wash immediately with plenty of water and soap. If splashes get into the eyes, wash with plenty of water and consult a physician. Contaminated clothing must be removed immediately.

Keep container tightly closed. Use only with adequate ventilation. Store away from incompatible substances in a cool, dry, ventilated area. Store between 10 - 25°C. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal.

Observe all Federal, State, and Local regulations when storing or disposing of this substance.

**Shipping and
Packaging**

Troyshield® PA10 is packaged in:

Shipping Container	Net Weight
Cans	20 kg
Drums	200 kg
2-way Totes	1000 kg

For further information visit our website:
www.troycorp.com or call...

- United States Tel: 973-443-4200
Fax: 973-443-0258
- Canada Tel: 905-760-7902
Fax: 905-760-7904
- EU Headquarter Tel: 31-10-592-7494
Fax: 31-10-592-8877
- Germany Tel: 49-5137-8236-316
Fax: 49-5137-8236-106
- Asia Pacific Tel: 66-2-397-372-16
Fax: 66-2-397-372-9
- Brasil Tel: 55-115575-0090
Fax: 55-115575-9080
- Middle East & Africa Tel: 44-162-878-1800
Fax: 44-162-867-6600

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