



TROYSHIELD® B2

Broad spectrum liquid bactericide for metalworking fluids

Description

Troyshield® B2 is a liquid preservative based on Hexahydrotriazin designed to inhibit the growth of bacteria in metalworking fluids.

Application/ Use

Troyshield® B2 can be used in emulsion types, semi-synthetic and synthetic metalworking fluids. It shows excellent stability in a pH-range commonly in use with these liquids. Troyshield® B2 should be used in products having a pH-range between 5 and 13.

The product does not contribute to corrosion due to its composition.

Troyshield® B2 is a skin-sensitizer (R 43-labeling at >0.12 wt.%) and is heat stable up to a temperature of 80°C.

Highlights

- Broad spectrum bactericide
- Headspace protection
- Free of CIT/MIT
- Cost effective
- Easy to incorporate
- Nearly odorless

Physical Properties

The following are typical properties of Troyshield® B2. They are not product specifications.

Appearance: Colorless to light yellow liquid

Specific Gravity, 20°C [g/ml]:app. 1,15

pH (as is)app. 9.0 to 11.0

SolubilityMiscible with water in any proportion

Antimicrobial Activity

Troyshield® B2 has a broad spectrum of efficacy against a wide range of microorganisms. Examples of organisms controlled by Troyshield® B2 are shown below

Bacteria	MIC* [%]	Fungi	MIC* [%]
<i>Escherichia coli</i>	0.02	<i>Aspergillus niger</i>	0.1
<i>Proteus mirabilis</i>	0.03	<i>Penicillium glaucum</i>	0.2
<i>Staphylococcus aureus</i>	0.03		
<i>Pseudomonas aeruginosa</i>	0.03		
Yeast			
<i>Candida albicans</i>	0.1		

*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 percentage. The lower the MIC value, 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 Levels

The common use level of Troyshield® B2 is in a range between 500 and 1500 ppm (0.05 – 0.15 % by weight) in the diluted metalworking fluid which means 1.0 to 3.0% in the MWF-concentrate.

Use level is depending on final formulation and conditions of use of the fluid. In order to evaluate the correct use level, it's important to carry out laboratory tests and/or machinery trials.

Formulating Considerations

Troyshield® B2 is a liquid product easily incorporated into the metalworking fluid. For best results, Troyshield® B2 should be added as the final step in the production process of the concentrate.

Troyshield® B2 should not be added directly to other biocides during the concentrate manufacturing process.

Troyshield® B2 can be used either in the concentrate or in the diluted fluid as a tankside addition.

It is good practice to check for the presence of fungi in the system in use. Fungi, like *Fusarium solani* amongst others, produce acidic enzymes which can destroy bactericides commonly used in metalworking fluids.

Chemical Inventories

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

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



Labeling

EU Regulations:

Harmful

R22- Harmful if swallowed.

R43- May cause sensitization by skin contact.

Troyshield® B2 is label free up to a use level of 0,12% in the end product according to Directive 1999/45/EC and its current amendments (Status 27.02.2009).

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

**Handling,
Storage, Health
And Safety**

For the handling of Troyshield® B2, the usual precautions for biocides have to be taken. Contact with the concentrate should be avoided. When handling Troyshield® B2, protective clothing and safety 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 between 5 - 40°C. Keep from freezing. Store away from incompatible substances in a dry and ventilated area. Do not store near food or feed.

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

Shelf Life: 24 Months from date of manufacture

**Shipping And
Packaging**

Troyshield® B2 is packaged in:

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

ADR, IATA, IMDG

This product does not meet the definition of any hazard class and therefore is not subject to ADR, IATA, and IMDG Regulations

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

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Fax: 973-443-0258
- Canada Tel: 905-760-7902
Fax: 905-760-7904
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