



## BIOCOOL 3220

MULTIPURPOSE METALWORKING FLUID  
SYNTHETIC SOLUTION

### DESCRIPTION

**BIOCOOL 3220** is a water soluble metalworking fluid concentrate particularly manufactured for machining operations requiring excellent cooling and very good lubricating properties.

**BIOCOOL 3220** is recommended for all grinding and machining operations on any ferrous or non-ferrous metals.

**BIOCOOL 3220** is compliant with SAFRAN Pr-6300 specification for Inconel and Titanium parts machining.

### APPLICATIONS

Operations: grinding, milling, sawing, turning, drilling...

**BIOCOOL 3220** is recommended for use on ferrous metals, aluminum (including some aeronautical alloys), yellow metals and hard metals.

### ADVANTAGES

- Excellent cooling properties.
- Very good lubricating properties.
- Excellent stability and biostability.
- Tramp oils easily removed.
- Excellent sludge decantation.
- Very good protection against corrosion.
- Operator friendly.
- Cleanliness of working environment

### TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS	UNITS	METHOD	BIOCOOL 3220
Density	-		1,080.0
pH	-	NFT 60.193	9.5 (5% micro emulsion)
Break Point Corrosion	%	IP 287	2.5
Refractometer Factor	-		1.9
Water Hardness range	ppm		0 - 600

These characteristics are given only for information and can be updated over time.



## RECOMMENDED CONCENTRATIONS OF USE

- Grinding : 3-5%
- Machining of ferrous metals: 5-8%
- Machining of hard metals: 6-12%
- Machining of non-ferrous metals: 6-8%

## HEALTH AND SAFETY

- Bactericide free, formaldehyde and formaldehyde releaser free
- No label product
- Nitrite and DEA free, without chlorinated, sulfur and phosphorous additives
- Operator friendly: good dermatological behavior and easy to use

## INSTRUCTIONS

Before first fill, thoroughly clean the installation with an antiseptic such as **Contram CB3**. Drain it and flush with water.

It is recommended pouring **BIOCOOL 3220** into water slowly while stirring continuously to achieve a correct preparation of the emulsion.

To ensure the best quality of emulsion and maximize the fluid efficiency, consult **the Good Practices Handbook – Metalworking Soluble Fluids**.

## SERVICES AND EQUIPMENT

In addition to its product ranges, MotulTech can provide tools and services for the maintenance and monitoring of your lubricants. Please contact your technical sales representative for more information.

### Important Notice

All information and rules about health, safety and the environment are mentioned on the safety data sheet. It provides information about risks, safety procedures and first aid emergency rules. It clarifies all procedures to implement in the case of an accidental spillage, and for the disposal of the product and its effects on the environment. The safety data sheet is available on [www.motul.com](http://www.motul.com).

Our product contains natural additives which are likely to modify the colour of the concentrates without altering its performance. The specifications of our products are definite only at the time of order, and are subject to our general sale and guarantee conditions. To give our customers the latest technical developments, the general characteristics of our products may vary.