

# SAFECUT E 103 (S)

CHLORINE FREE, BIOSTABLE METAL WORKING FLUID

410118-410122/05.15

Rev. 1

## DESCRIPTION & APPLICATIONS

SAFECUT E 103 is a self emulsifying oil. In water it becomes a fair stable, milky emulsion. This product is free of chlorine, sulfur, phosphor, nitrites and phenol. Moreover it provides a good bacterial resistance.

SAFECUT E 103 is developed to be used as a coolant / lubricant soluble oil for all metal working applications (drilling, turning, tapping, sawing, ...) especially on aluminum, copper and copper alloys at a concentration of 5 to 10 %. It can also be used for diverse applications on cast iron and steel.

## ADVANTAGES

- Insensibility to hard water: the emulsion remains perfectly stable.
- Protection against corrosion: no problems during storage of machined parts at short time
- Excellent lubrication during cutting applications
- No formation of gum after the evaporation of the water
- Strong anti-foam properties
- No problems with evacuation of chips during working due to the onctuousity and detergent properties of the fluid.

## ENVIRONMENT, HEALTH & SAFETY

Please consult also the Safety Data Sheet about how to manipulate and to stock the product as well as to learn about the first aid measurements in case of accident.

Elimination after use must be made in conformity with the local rules in force about used soluble oils disposal. When needed, Safety Data Sheet can be obtained upon request.

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## USE

### Storage life:

Maximum 12 months from the date of fabrication.  
Protect against frost and not warmer than 40°C.

### Concentration:

General metal working applications: 5 %  
Severe metal working applications: 8-10 %

### Preparation of the emulsion:

Always pour the concentrate into the water and mix gently (NEVER reverse the mixture). We can propose automatic mixers to produce a consistent emulsion.

### Emulsion management:

Remove the free oil, metal chips or other contaminants from the surface of the emulsion bath. Measure the concentration periodically with a refractometer. Make sure the concentration does never drop under 2 % in order to maintain a proper protection against corrosion and bacteria.

### Remark:

We advise to clean the polluted baths thoroughly 4 to 5 days before emptying with CLEANER 2 METALWORK added at 2 % in the emulsion in order to disinfect the machine

## PROPERTIES

CHARACTERISTICS	UNITS	METHODS	TYPICAL DATA	
Type	-	-	E 103	idem
Specific gravity at 15°C	kg/m <sup>3</sup>	NFT 60101	953	idem
Viscosity of the concentrate at 40°C	mm <sup>2</sup> /s (cSt)	NFT 60100	71	idem
pH at 3 % in water	-	NF T 90-008	8,8	idem
pH at 5 % in water	-	NF T 90-008	9	idem
Correction factor refractometer	coefficient	-	0,9	idem
Color	-	-	laiteuse	idem
Product number	-	-	410118	410122

*The average values are given for information only.*