

MAXISOL 105

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DESCRIPTION:

Emulsifiable/soluble, \ **biobalanced**, advanced technology cutting fluid, especially designed for **multi-metal machining** operations where a **universal cutting fluid that is cheap to maintain** is required that has a low environmental impact.

Maxisol 105 is based on the **Strub SK2 Steel** product, using the **exclusive Swiss technology 'biobalance'**, based on ingredients free of biocides and fungicides.

PROPERTIES & ADVANTAGES:

- ✓ Easily emulsifiable/soluble in water, it forms a **stable microemulsion in waters of any level of hardness**.
- ✓ Excellent anti-corrosion and antioxidant effect in concentrations greater than 6% in water. It protects moving parts of tooling machines and machined parts.
- ✓ High cooling capacity thanks to the small drop size of its microemulsion that is stable over time. Rapid removal of heat from the work area, ensuring tolerances are respected.
- ✓ It provides optimal lubrication between the tooling machine and the part, allowing for excellent finishes.
- ✓ Good compatibility with the majority of oils for guides on the market*, allowing for easy separation.
- ✓ High extreme pressure (EP) capacity for medium to difficult operations.
- ✓ Low foam formation.
- ✓ Compatible with the majority of aluminum alloys for medium to difficult operations.
- ✓ 'Low-cost' product concept thanks to the low consumption of cutting fluid during machining operations, low maintenance cost (with low tank re-fill measures) and excellent value for money.
- ✓ Kind to the operator's skin thanks to its limited pH. Its exclusive formula with bioflora avoids biocidal additives being used for maintenance in general usage of conventional cutting fluids, which are very harmful to the skin and the health of the people operating the machine.
- ✓ Free of formaldehydes, formaldehyde releasers and secondary amines.

APPLICATIONS:

- ✓ Especially formulated for machining and cutting of all types of materials, including ferrous materials, steel alloys, and smelting. It is also suitable for working with aluminum alloys.
- ✓ General machining of medium to difficult operations: broaching, lathing in multi-spindle machines, milling, saw-cutting, drilling, interior threading, manual threading, etc.

HOW TO USE:

Maxisol 105 is used by pouring the product into water and gently stirring until it is emulsified. The minimum recommended concentration for using MAXISOL 105 is 6%. The percentage may vary depending on the operation to be performed, the material to be machined, and the quality of the water used, as well as the level of anti-corrosion protection desired for the finished parts. Consult our Technical Service for information for each case.

In order to replenish levels, it is recommended that percentages between 2 and 4 of Maxisol 105 are dosed continuously in water.

Regularly monitor the concentration of the MAXISOL 105 in the bath by using a refractometer.

Correction factor for a portable refractometer (real concentration = refractometer reading x correction factor):

- ✓ Aqueous emulsion at 5% = 1,75

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The following table shows the approximate dosage according to the type of operation:

Machining application or operation	Concentration of Maxisol 105 in water (%) - Emulsion
Grinding	6
Machining and general lathing	6
Cutting / Drilling	6 - 7
Milling / Sawing	7 - 8
Reaming	8 - 10
Interior threading	10 - 15
Thread forming	10 - 15
Deep drilling	10 - 15
Manual threading	Apply pure
Replenishment of bath levels	2 - 4

TECHNICAL DATA:

PHYSICOCHEMICAL CHARACTERISTICS	STANDARD	VALUE
Nature	-	Mineral oil
Concentrated appearance	Visual	Transparent, yellowish
Density at 15 °C, typical (kg/l)	ASTM D-1298	0,970 - 0,990
pH at 5 %	pH-meter	9 - 10,5
Stability of the emulsion at 5% after 24 h	Visual	Total
Appearance of the emulsion at 5%	Visual	Translucent / Transparent
Corrosion test at 6%, grade	IP 287	0
Herbert corrosion test at 6%, grade	IP 125	0/0-0

HOW TO USE:

Maxisol 105 must be stored in a cool, dry location, away from direct sunlight.

The storage temperature must be between 7 and 40 °C. In the event of the product being stored below 7 °C, it may take on a cloudy appearance. In that case, store the product for three days at a temperature above 20 °C and shake before use. The product will recover its initial properties and can then be used with absolute operational guarantee.

**OLIPES recommends the use of STRUB VULCOWAY micro filtered oils for rails and skids, formulated with highly refined and ash-free (zinc-free) oils, with rapid demulsifying in order to ensure peak performance of the lubrication system, increase the life of the filters, reduce the formation of foam in the cutting fluid, prolong the life of the cutting fluid in service, and avoid decay in the machine, ensuring maximum precision and productivity for the machine.*

PACKAGING:

20L jerrycan and 200L drum.

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