

## MATECUT MIX

Coolant for machining operations

### Description and Applications

**MATECUT MIX** is a synthetic, emulsifiable coolant, completely free from PAH and petroleum derivatives, designed for medium- to heavy-duty machining and grinding of ferrous materials.

**MATECUT MIX** has a innovative formulation, as based on next-generation raw materials—fully saturated esters.

**MATECUT MIX** is the safest choice for workers' health and has the lowest possible environmental impact; it is widely used and accepted in the most modern mechanical engineering companies and meets increasingly strict environmental and toxicological requirements.

### Characteristics and Benefits

Our experience in utilising mineral oil-free coolants has enabled us to select a blend of synthetic esters. Thanks to their polarity, they work in synergy to give the product excellent lubricating properties, ensuring outstanding tribological cutting performance and exceptional surface finishes, without compromising the cleaning power on machined parts, equipment, and machine tool.

**MATECUT MIX** can be used in a wide range of formulation water (from 5 to 40°F), ensuring low foaming even at high operating pressures in soft water and preventing the formation of soap and sludge in the machine when used with hard water.

**MATECUT MIX** is effective in both individual tanks and centralized systems, ensuring the tanks' long service life and reducing the need for corrective additives (biocides, defoamers, alkalizers), if used at the concentrations recommended by our Technical Service.

**MATECUT MIX** is widely used in turning, milling, and drilling operations on ferrous materials such as cast iron, ductile iron, steel-based cast irons, and low-alloy steels. It can be used in the profiling of steel pipes. Thanks to a formulation rich in antioxidant additives, it provides excellent corrosion protection on machined parts.

**MATECUT MIX** has an excellent environmental toxicological profile and stands out from traditional products because it is completely free of mineral oil, chlorine, boric acid, and formaldehyde-releasing biocides. It contains no SVHC substances and no PAH.

## Chemical and Physical Properties

|                                          |                                      |
|------------------------------------------|--------------------------------------|
| Appearance                               | clear homogeneous liquid             |
| Color                                    | light brown                          |
| Density (Kg/m <sup>3</sup> @15°C)        | 1000                                 |
| Emulsion-like appearance (5% water 20°F) | finely dispersed, translucent        |
| Test DIN 51360/1                         | succeeded (with concentration at 3%) |
| Test DIN 51360/2                         | succeeded (with concentration at 3%) |
| Refractometric factor                    | 3,0                                  |

*The data shown above do not constitute a specification*

## Indicative operating concentrations

Grinding of Cast Iron and Steel: 5-6%  
 General-purpose machining of cast iron and steel: 6-8%  
 Pipe profiling: 5-8%

## Storage Instructions

Store the product in its original, unopened packaging, inside a covered warehouse at temperatures between +5 and +40°C. When stored properly, the product keeps its characteristics for a period of no less than six months. Storage at excessively low temperatures may cause the product to gel, driving to a temporary difficulty in preparing emulsions.