

TECHNICAL PRODUCT SHEET

# MATRIX STR



## DESCRIPTION

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MATRIX STR is a high-quality, semi-synthetic, bio-stable coolant that forms a stable, odorless, transparent emulsion when mixed with water. It offers enhanced wetting and detergency properties and is suitable for a wide range of machining operations on both ferrous and non-ferrous metals.

## APPLICATIONS

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MATRIX STR is suitable for medium- to heavy-duty machining operations on aluminum, steel alloys, and cast iron.

**Emulsion preparation:** The required mixing ratio depends on the type of machining operation, the water hardness, and the level of corrosion protection needed. In general, MATRIX STR is used at concentrations ranging from 1:20 to 1:50, depending on application severity.

## SPECIFICATIONS

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ISO 6743-7 (ISO-L-MAA)

## PROPERTIES

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MATRIX STR offers excellent multi-metal compatibility, performing reliably on both ferrous and non-ferrous materials. It provides improved lubricity and strong protection against rust and oxidation, ensuring durability even under high-load machining conditions. Its rapid heat-removal capability enhances operational stability, while resistance to microbial growth helps maintain low odor and long-term emulsion cleanliness.

## BENEFITS

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MATRIX STR provides full visual clarity of the work area and is suitable for a wide range of general-purpose machining applications. It delivers exceptionally long system life, excellent surface finish on machined components, and stable performance even at high cutting speeds. Safe for both users and the environment, it supports efficient, clean, and reliable machining operations.



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### PHYSICAL-CHEMICAL CHARACTERISTICS

MATRIX STR	METHOD	
Density at 15°C, g/cm <sup>3</sup>	ASTM D4052	0.976
Viscosity, Kinematic (cSt) 40°C	ASTM D445	72
Emulsion stability, 5% v/v - 200ppm/ 24hrs - 1000ppm/ 24hrs	Visual	Stable; no oil separation Stable; no oil separation
Color	ASTM D1500	3.5
p.H. solution (5% in DI-water) @20°C	-	9.2

The above mentioned characteristics represent mean values.

### STORAGE

All packages must be stored in covered, well-ventilated areas. If outdoor storage cannot be avoided, barrels must be placed horizontally to prevent water ingress and to protect labels and markings from damage. Products must not be stored at temperatures above 60 °C and must not be exposed to direct sunlight, freezing conditions, or extreme temperature fluctuations.



### HEALTH & SAFETY

This product is not considered to pose significant risks to health or safety when used as intended and in accordance with recommended personal hygiene practices. It must not be applied for purposes other than those for which it has been formulated. For detailed guidance on safe handling and use, refer to the Safety Data Sheet (SDS).



### USED OILS

Used lubricants must be collected at designated collection points to prevent environmental contamination. They must not be mixed with solvents, brake fluids, or antifreeze.

