

# RELIASOL E-BA

## Emulsion Type Cutting Fluid with Excellent Resistance to Decay for Non-Ferrous Materials

**RELIASOL E-BA** is an emulsion-type water-soluble cutting fluid formulated with unique antibacterial agents and lubricity improvers, providing excellent decay resistance, cutting performance, rust prevention and antifoaming properties. It does not contain sulfur, phosphorus, or chlorine-based extreme pressure additives, making it an environmentally-friendly product that is not subject to PRTR law. **RELIASOL E-BA** is a high-performance cutting fluid suitable for metalworking of aluminum alloys, cast iron, carbon steel, and other metals. It corresponds to JIS K2241 Type A1, No. 2.

### ● Special Features

#### 1. Superior decay resistance

Due to its blend of unique antibacterial agents, **RELIASOL E-BA** maintains its decay resistance and rust prevention properties over a long period of time, and it is possible to extend the life of the fluid as it also has excellent separation from slideway oils.

#### 2. Good machining performance

Because **RELIASOL E-BA** contains lubricity improver, it has good cutting performance.

#### 3. Superior in rust prevention characteristics

**RELIASOL E-BA** is formulated with excellent rust prevention additives, as it is also used in the processing of ferrous materials such as cast iron.

#### 4. Excellent Anti-Foaming Properties

**RELIASOL E-BA** is excellent in antifoaming properties, and diluted solution can be used in high-pressure coolant up to 7 MPa.

#### 5. Environment-friendly Fluid

**RELIASOL E-BA** is an environmentally friendly product that is not applicable to PRTR law.

### ● Applications

**RELIASOL E-BA** is suitable for processing various ferrous materials such as carbon steel and cast iron, copper materials and aluminum alloys. It is also suitable for processing using a machining center.

### ● Dilution Rate During Use

Cutting: 10 to 30 times  
Grinding: 20 to 50 times

The above dilution rates are based on the assumption of standard operating conditions. They should be adjusted depending on the machining conditions and amount of processing.

### ● Containers

200-liter drum, 20-liter can.

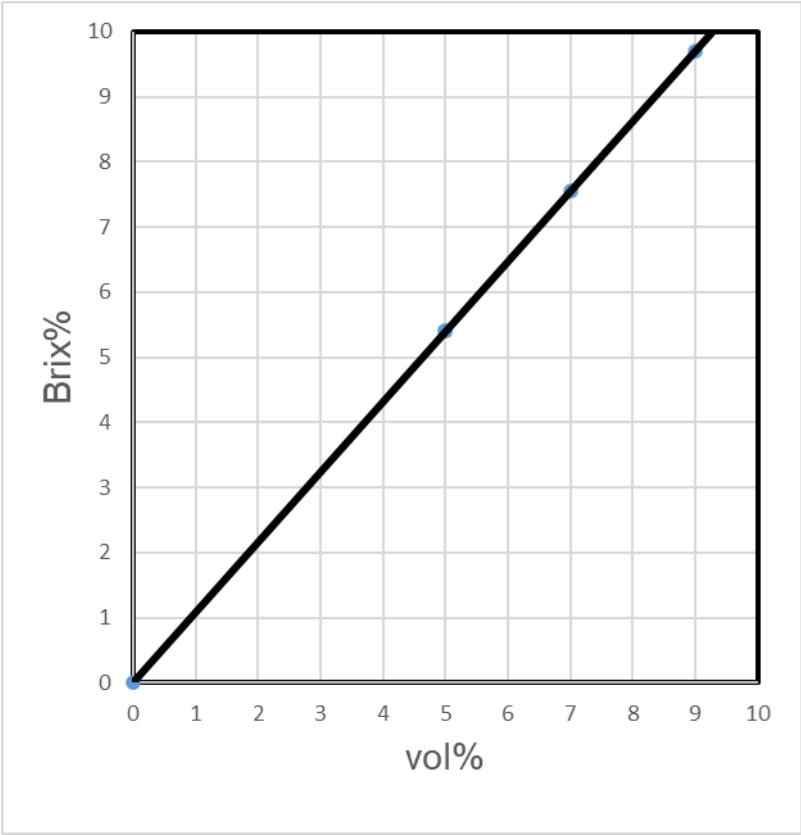
### ● Typical Properties of RELIASOL E-BA

Appearance (original fluid)	Light yellow
(diluted fluid)	Milky white
Density (15°C), g/cm <sup>3</sup>	0.936
Surface tension* (25°C), mN/m	32
pH*	9.1
Anticorrosion test (RT, 48h)*	
Steel sheet	No discoloration
Aluminum sheet	No discoloration
Copper sheet	No discoloration
Foaming* (24°C), ml	0
Emulsifying stability* (RT, 24°C)	
Distilled water, ml oil	0
Distilled water, ml creamy	0
Hard water, ml oil	0
Hard water, ml creamy	0

\*Measured with 10x diluted fluid (based on JIS K 2241).

Note: The typical properties may be changed without notice. (November 2023)

**Concentration Conversion Graph for RELIASOL E-BA  
(Atago Digital Refractometer PR-101)**





## Handling Precautions

▼ Follow these precautions when handling this product.

<b>Composition :</b>	Water-soluble processing oil Mixture(Base oil(s), Additives)
<b>Hazard pictograms:</b>	
<b>Signal word:</b>	Warning
<b>Hazard Statement:</b>	Harmful if inhaled Causes skin irritation Causes serious eye irritation
<b>Precautionary Statements:</b>	<ul style="list-style-type: none"><li>• Do not handle until all safety precautions have been read and understood.</li><li>• Wear protective gloves/protective clothing/eye protection/face protection.</li><li>• Do not allow the eyes to become exposed to the product. Do not swallow the product.</li><li>• Use only outdoors or in a well-ventilated area.</li><li>• Avoid breathing dust/fume/gas/mist/vapours/spray.</li><li>• Wash hands thoroughly after handling.</li><li>• Do not eat, drink or smoke when using this product.</li></ul>
<b>Response</b>	<ul style="list-style-type: none"><li>• IF SWALLOWED: Immediately call a POISON CENTER/doctor.</li><li>• IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li><li>• If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.</li><li>• IF ON SKIN: Wash with plenty of soap and water.</li><li>• IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li><li>• If skin irritation or a rash occurs: Get medical advice/attention.</li><li>• IF IN EYES: Rinse cautiously with water for several minutes.</li><li>• Remove contact lenses, if present and easy to do. Continue rinsing.</li><li>• If eye irritation persists: Get medical advice/attention.</li><li>• Take off contaminated clothing and wash it before reuse.</li></ul>
<b>Storage</b>	<ul style="list-style-type: none"><li>• The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.</li><li>• Containers that have been opened must be tightly sealed.</li></ul>
<b>Disposal</b>	<ul style="list-style-type: none"><li>• Dispose of contents/container in accordance with local/regional/national/international regulations.</li><li>• If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.</li></ul>