

# RELIASOL E-B(N)

## Emulsion Type Cutting Fluid with Excellent Resistance to Decay

**RELIASOL E-B(N)** is an emulsion type cutting fluid which is formulated with antibacterial substances and lubricity improver. **RELIASOL E-B(N)** is excellent in decay resistance, cutting performance, rust prevention and antifoaming property. **RELIASOL E-B(N)** does not contain candidate chemical substances subject to the Poisonous and Deleterious Substances Control Law, and is considered for its effects on the human body. Also, it does not contain sulfur, phosphorus and chlorine type extreme pressure agents. **RELIASOL E-B(N)** is a high performance fluid suitable for metalworking of cast iron, carbon steel, etc. It corresponds to JIS K2241 Type A1, No. 1.

### ● Special Features

#### 1. Superior decay resistance

**RELIASOL E-B(N)** maintains decay resistance and anti-rust performance for a long time, because it contains antibacterial substances. Thus, it is possible to extend the life of the fluid.

#### 2. Good machining performance

Because **RELIASOL E-B(N)** contains lubricity improver, it has good cutting performance.

#### 3. Superior in rust prevention characteristics

**RELIASOL E-B(N)** is formulated with high performance anti-rust additives, because it is aimed for the machining of ferrous materials such as cast iron.

#### 4. High human safety

**RELIASOL E-B(N)** is a product that does not contain candidate chemical substances subject to the Poisonous and Deleterious Substances Control Law and takes into consideration the effects on the human body.

### ● Applications

**RELIASOL E-B(N)** is suitable for various processing of ferrous materials such as carbon steel and cast iron. It is also suitable for processing using a machining center.

### ● Dilution Rate During Use

Cutting: 10 to 20 times  
Grinding: 10 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.

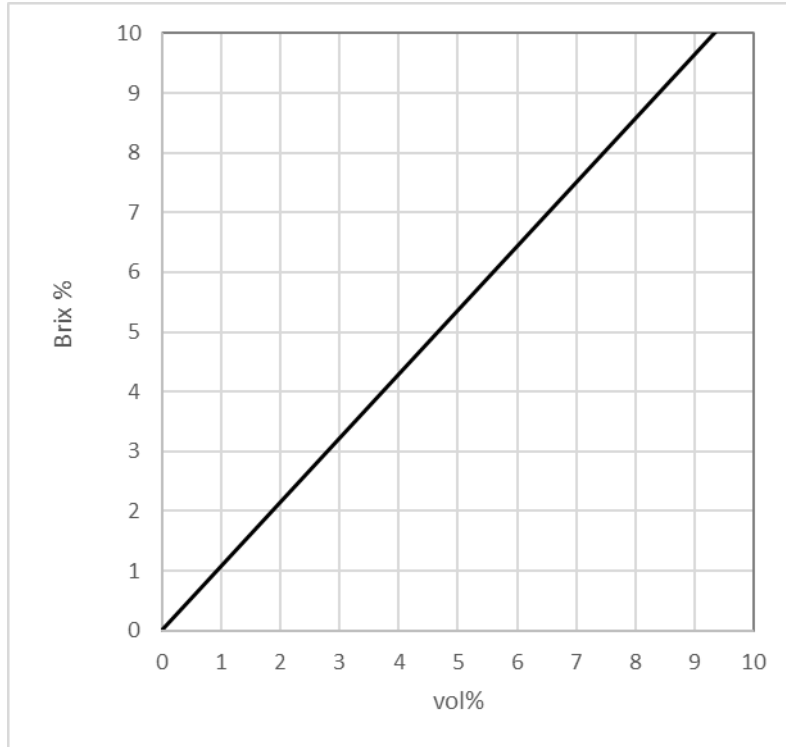
### ● Typical Properties of RELIASOL E-B(N)

Appearance (original fluid)	Light tan
(diluted fluid)	Light white
Density (15°C), g/cm <sup>3</sup>	0.953
Surface tension* (25°C), mN/m	30.1
pH*	9.8
Anticorrosion test (RT, 48h)*	
Steel 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

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


**Concentration Conversion Graph for RELIASOL E-B(N)  
(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>	Danger
<b>Hazard Statement:</b>	Causes skin irritation Causes serious eye damage May cause an allergic skin reaction Harmful to aquatic life
<b>Precautionary Statements:</b> <b>Prevention</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>• Avoid release to the environment.</li><li>• Contaminated work clothing should not be allowed out of the workplace.</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 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>• 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>