

RELIASOL S-B

Water-Soluble Type Cutting and Grinding Fluid with Excellent Resistance to Decay

RELIASOL S-B is a water-soluble type cutting and grinding fluid which is formulated with antibacterial substances and lubricity improver. **RELIASOL S-B** is excellent in resistance to decay, cutting performance, rust prevention characteristics and antifoaming property. **RELIASOL S-B** 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 S-B** is a high performance fluid suitable for metalworking of a wide range of materials and metalworking methods. It corresponds to JIS K2241 Type A2, No. 1.

● Special Features

1. Superior decay resistance

RELIASOL S-B 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

RELIASOL S-B, which contains a lubricity improver, has workability close to that of emulsion type water-soluble cutting fluids. It improves workability especially in casting machining.

3. Superior in rust prevention characteristics

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

4. Reduction of dirt around the machine

Since **RELIASOL S-B** is oil-free, it reduces the stickiness of machines and workpieces. Therefore, the work environment can be improved.

5. Outstanding Foaming Prevention

Since **RELIASOL S-B** has low foaming property and excellent anti-foaming property, it can be used in high-pressure coolant.

6. High human safety

RELIASOL S-B 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.

● Dilution Rate During Use

Cutting: 20 to 30 times

Grinding: 30 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 S-B

Appearance	(original fluid)	Yellow
	(diluted fluid)	Light white transparent
Density (15°C), g/cm ³		1.036
Surface tension* (25°C), mN/m		33.6
pH*		9.6
Anticorrosion test (RT, 48h)*		No discoloration
Steel sheet		
Foaming* (24°C), ml		0

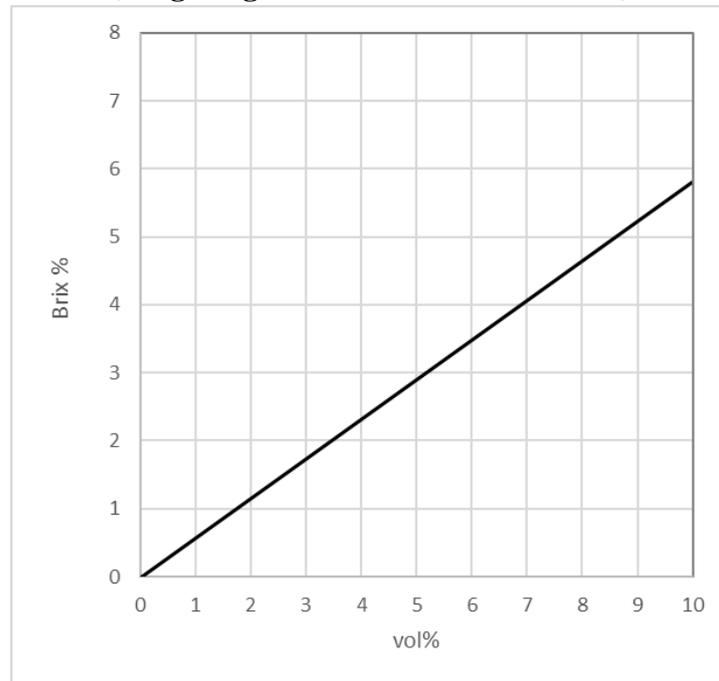
*Measured with 30x diluted fluid

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

● Applications

RELIASOL S-B is suitable for turning, drilling, reaming, etc. of steel materials such as carbon steel and cast iron and aluminum alloys. It is also suitable for grinding of steel materials.

**Concentration Conversion Graph for RELIASOL S-B
(Atago Digital Refractometer PR-101)**





Handling Precautions

▼ Follow these precautions when handling this product.

Composition :	Water-soluble processing oil; Mixtures(Triethanolamine)
Hazard pictograms:	
Signal word:	Danger
Hazard Statement:	Causes skin irritation Causes serious eye damage May cause an allergic skin reaction Suspected of causing cancer Suspected of damaging fertility or the unborn child May cause damage to organs (liver) May cause damage to organs (respiratory tract) through prolonged or repeated exposure Harmful to aquatic life Harmful to aquatic life with long lasting effects
Precautionary Statements: Prevention	<ul style="list-style-type: none">• Do not handle until all safety precautions have been read and understood.• Wear protective gloves/protective clothing/eye protection/face protection.• Do not allow the eyes to become exposed to the product. Do not swallow the product.• Avoid release to the environment.• Contaminated work clothing should not be allowed out of the workplace.• Obtain special instructions before use.• Do not breathe dust/fume/gas/mist/vapours/spray.• Wash hands thoroughly after handling.• Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none">• IF SWALLOWED: Immediately call a POISON CENTER/doctor.• IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.• If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.• IF ON SKIN: Wash with plenty of soap and water.• IF exposed or concerned: Get medical advice/attention.• Get medical advice/attention if you feel unwell.• If skin irritation or a rash occurs: Get medical advice/attention.• IF IN EYES: Rinse cautiously with water for several minutes.• Remove contact lenses, if present and easy to do. Continue rinsing.• Take off contaminated clothing and wash it before reuse.
Storage	<ul style="list-style-type: none">• The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.• Containers that have been opened must be tightly sealed.• Store locked up
Disposal	<ul style="list-style-type: none">• Dispose of contents/container in accordance with local/regional/national/international regulations.• If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.