

RELIACUT AE Series

Chlorine-free Water-insoluble Cutting Oils with High Flash Point (Active sulfurized extreme-pressure agents type)

RELIACUT AE Series are chlorine-free water-insoluble cutting oils blended with special synthetic base oils with high flash point, the high-performance active sulfurized extreme-pressure agents and friction modifiers. Since **RELIACUT AE Series** use special synthetic oils, they have excellent machining performance and achieve a high flash point despite their low viscosity. **RELIACUT AE Series** can be applied to a wide range of machining processes such as cutting and grinding of difficult-to-machine materials like alloy steel and stainless steel.

● SPECIAL FEATURES

1. High Flash Point

RELIACUT Series use special high flash point synthetic base oils and high flash point additives. Despite their low viscosity, these products have high flash points which are classified as flammable liquids (**RELIACUT AE-P 20**, **AE-P 25**) and Class 4 Petroleum Products (**RELIACUT AE 10**) under the Fire Service Act in Japan.

2. Excellent Cutting and Grinding Performance

RELIACUT AE Series exhibit excellent performance in cutting and grinding of difficult-to-machine materials, and improve processing accuracy and extend tool life through the use of carefully selected additives, in addition to the excellent oiliness of the base oil itself.

3. Excellent Lubricity

RELIACUT AE Series are blended with special sulfurized extreme-pressure agents, providing excellent load-carrying capacity.

4. High Viscosity Index and Low Pour Point

Because of the use of special synthetic oils as base oils, **RELIACUT AE Series** have high viscosity index and low pour point. Therefore, they can be used in a wide range of temperatures.

5. Excellent Stability

Since **RELIACUT AE Series** use synthetic oils that are superior in chemical stability, they can be used for a longer term than vegetable oil-based cutting oils.

● APPLICATIONS

RELIACUT AE 10

Suited for automatic lathe processing, grinding, deep hole processing such as BTA processing and gun drilling, and various machining processes such as drilling, reaming, and thread cutting with machining centers for steel materials such as alloy steel and stainless steel.

RELIACUT AE-P 20

Suited for turning with lathes and automatic lathes, grinding, deep hole processing such as BTA and gun drilling, and various machining processes such as drilling, reaming, and thread cutting with machining centers for materials such as alloy steel and stainless steel.

RELIACUT AE-P 25

Suited for turning with lathes and automatic lathes, grinding, and other processing of materials such as alloy steel and stainless steel.

● CONTAINERS

200-liter drum and 20-liter can

● TYPICAL PROPERTIES OF RELIACUT AE Series

			AE 10	AE-P 20	AE-P 25
Appearance			Light brown, Liquid	Light yellow, Liquid	Yellow, Liquid
Color	(ASTM)		L3.0	L1.5	L2.0
Density	(15°C)	g/cm ³	0.891	0.892	0.909
Kinematic viscosity	(40°C)	mm ² /s	11.1	20.1	27.3
Flash point	(COC)	°C	222	256	256
Pour point		°C	-20.0	-25.0	-20.0
Acid number		mgKOH/g	0.52	0.30	0.73
Copper strip corrosion	(100°C, 1h)		4	4	4
Fatty oil content		mass%	>70	>70	>70
Sulfur content		mass%	2.83	0.86	1.99

Note: The typical properties may be changed without notice. (October 2024)



Handling Precautions

▼ Follow these precautions when handling this product.

RELIACUT AE 10

Composition :	Base Oil(s), Additives
Hazard pictograms:	
Signal word:	Danger
Hazard Statement:	May be fatal if swallowed and enters airways
Precautionary Statements:	<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. • 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. • Do NOT induce vomiting.
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.

RELIACUT AE-P 20, AE-P 25

Composition :	Base Oil(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
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.• 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.
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