

# RELIACUT DE, DE-P Series

Chlorine-free anti-mist cutting fluid with high flash point

**RELIACUT DE, DE-P Series** are chlorine-free anti-mist type cutting fluids blended with properly-selected inactive sulfurized extreme-pressure agents and friction modifiers. Since special synthetic oils are used as base oils, **RELIACUT DE, DE-P Series** feature superior processing performance, high flash point and low viscosity.

**RELIACUT DE, DE-P Series** are suitable for general lathing and processing, gear cutting and other demanding operations of non-ferrous metals and steel materials such as carbon steel and alloy steel.

## ● Special Features

### 1. Excellent Cutting and Grinding Performance

Since **RELIACUT DE, DE-P Series** are blended with synthetic oils which have superior oiliness effect, inactive sulfurized extreme-pressure agents and special friction modifiers, they provide improved finished surface roughness and longer tool life in the general machining of ferric metals.

### 2. Excellent Lubricity

**RELIACUT DE, DE-P Series** are blended with special sulfurized extreme-pressure agents and they feature excellent load carrying capacity.

### 3. High Viscosity Index and Low Pour Point

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

### 4. Excellent Oxidation Stability

**RELIACUT DE Series** use synthetic oils which are superior in chemical stability. **RELIACUT DE Series** can be used for a longer term than vegetable oil-based cutting oils.

## ● Applications

### RELIACUT DE 10, RELIACUT DE-P 15

\* Suited for drilling, reaming, threading, deep hole drilling and various processing at machining center of non-ferrous metals and steel materials such as carbon steel and alloy steel

### RELIACUT DE-P 20

\* Suited for drilling, reaming, threading, deep hole drilling and various processing such as machining center, lathe, automatic plate processing of non-ferrous metals and steel materials such as carbon steel and alloy steel

### RELIACUT DE-P 25

\* Suited for general lathing and processing, gear cutting and automatic lathe processing of non-ferrous metals and steel materials such as carbon steel and alloy steel

## ● Containers

200-liter drums and 20-liter cans

## ● Typical Properties of RELIACUT DE, DE-P Series

		DE 10	DE-P 15	DE-P 20	DE-P 25
Appearance		Light yellow, Liquid	Light yellow, Liquid	Light yellow, Liquid	Light yellow, Liquid
Color(ASTM)		L1.0	L1.0	L1.5	L1.5
Density		0.865	0.953	0.893	0.904
Kinematic viscosity(40°C)	mm <sup>2</sup> /s	10.0	16.8	19.7	24.5
Kinematic viscosity(100°C)	mm <sup>2</sup> /s	2.95	4.01	5.49	5.79
Viscosity index		160	141	244	193
Flash point(COC)	°C	230	256	256	256
Pour point	°C	-25	-17.5	-27.5	-25
Acid number	mgKOH/g	0.15	0.07	0.31	0.13
Copper corrosion(100°C, 1h)		1	1	1	1
Fatty content	mass%	>70	>70	>70	>70
Sulfur content	mass%	0.31	0.51	0.50	0.50

Note: The typical properties may be changed without notice. (March 2020)



## Handling Precautions

▼ Follow these precautions when handling this product.

### RELIACUT DE 10

<b>Composition :</b>	Base Oil(s), Additives
<b>Precautionary pictograms:</b>	
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	May be fatal if swallowed and enters airways Harmful to aquatic life Harmful to aquatic life with long lasting effects
<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>• 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 or doctor/physician.</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>• Do NOT induce vomiting.</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> <li>• Store locked up.</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>


**RELIACUT DE-P 15**

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	Not applicable
<b>Signal word:</b>	Not applicable
<b>Hazard Statement:</b>	Harmful to aquatic life
<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>• Wash hands thoroughly after handling.</li> <li>• Do not eat, drink or smoke when using this product.</li> </ul>
<b>Prevention</b>	
<b>Response</b>	<ul style="list-style-type: none"> <li>• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</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>• Avoid release to the environment.</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>

**RELIACUT DE-P 20**

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	Not applicable
<b>Signal word:</b>	Not applicable
<b>Hazard Statement:</b>	Not applicable
<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>• Wash hands thoroughly after handling.</li> <li>• Do not eat, drink or smoke when using this product.</li> </ul>
<b>Prevention</b>	
<b>Response</b>	<ul style="list-style-type: none"> <li>• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</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> </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>

RELIACUT DE-P 25

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	
<b>Signal word:</b>	Warning
<b>Hazard Statement:</b>	Suspected of damaging fertility or the unborn child Harmful to aquatic life Harmful to aquatic life with long lasting effects
<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>• Obtain special instructions before use.</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 or doctor/physician.</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 exposed or concerned: Get medical advice/attention.</li> <li>• Avoid release to the environment.</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> <li>• Store locked up.</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>