

RELIACUT DE, DE-P Series

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

RELIACUT DE and **DE-P Series** are chlorine-free water-insoluble cutting oils blended with special synthetic base oils with high flash point, the new unique inactive sulfurized extreme-pressure agents and friction modifiers. Since special synthetic oils are used as base oils, **RELIACUT DE** and **DE-P Series** feature superior machining performance and high flash point despite low viscosity.

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

● SPECIAL FEATURES

1. High Flash Point

RELIACUT DE and **DE-P 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 DE-P 15, 20, 25**) and Class 4 Petroleum Products (**RELIACUT DE 10**) under the Fire Service Act in Japan.

2. Excellent Cutting and Grinding Performance

Since **RELIACUT DE** and **DE-P Series** are blended with synthetic oils that have superior oiliness effects, inactive sulfurized extreme-pressure agents, and special friction modifiers, they provide improved processing accuracy and longer tool life.

3. Excellent Lubricity

RELIACUT DE and **DE-P 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 DE** and **DE-P 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 DE** and **DE-P 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 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 and automatic lathe of non-ferrous metals and steel materials such as carbon steel and alloy steel

RELIACUT DE-P 25

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

● CONTAINERS

200-liter drum and 20-liter pail can

● 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	L1.0	L1.5
Density	(15°C)	g/cm ³	0.866	0.953	0.893	0.905
Kinematic viscosity	(40°C)	mm ² /s	10.3	16.9	20.2	25.1
Flash point	(COC)	°C	230	258	258	272
Pour point		°C	-25.0	-12.5	-30.0	-22.5
Acid number		mgKOH/g	0.06	0.06	0.25	0.43
Copper strip corrosion	(100°C, 1h)		1	1	1	1
Fatty oil content		mass%	>70	>70	>70	>70
Sulfur content		mass%	0.31	0.51	0.50	0.51

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



Handling Precautions

▼ Follow these precautions when handling this product.

RELIACUT DE10

Composition :	Base Oil(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Harmful to aquatic life Harmful to aquatic life with long lasting effects
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. • Avoid release to the environment. • 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.
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.
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 DE-P15, DE-P20

Composition :	Base Oil(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
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.
Prevention	
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.
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.
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 DE-P 25

Composition :	Base Oil(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Harmful to aquatic life Harmful to aquatic life with long lasting effects
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. • Avoid release to the environment. • Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product.
Prevention	
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.
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.
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.