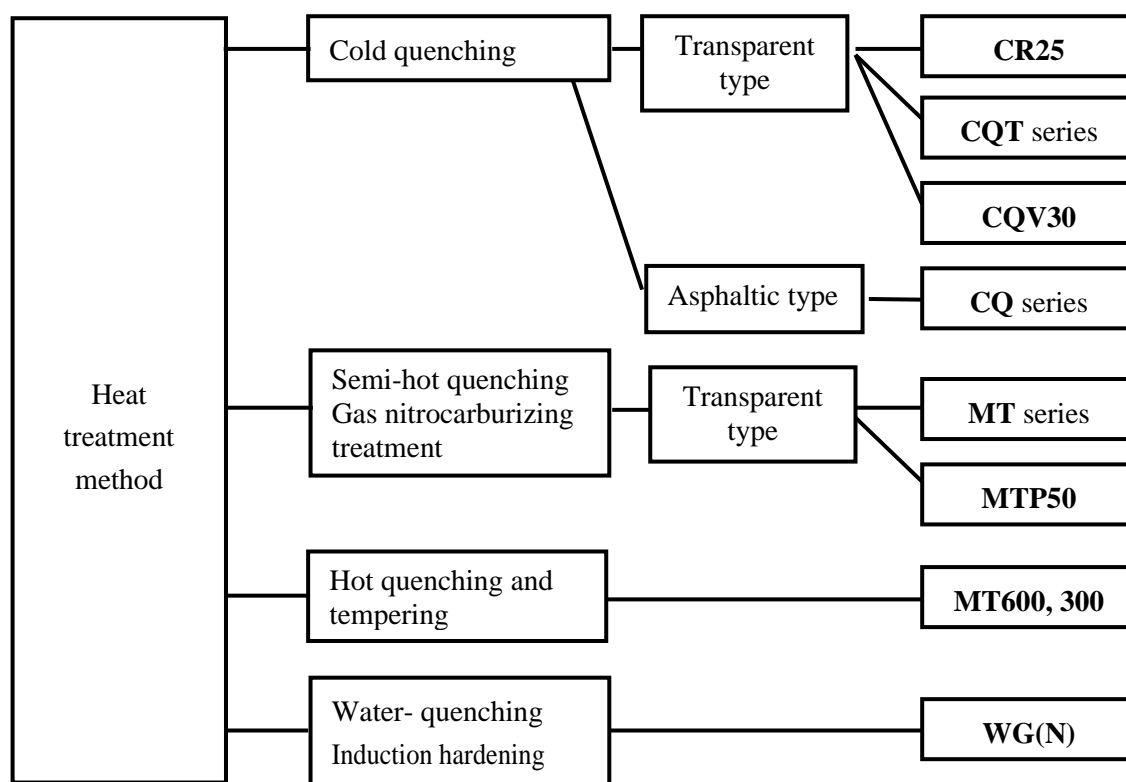


UNIQUENCH series

Heat Treating Oils for Steel (Quenching oils)

UNIQUENCH series offers various products suitable for a wide range of heat treatment applications, widely used in the metalworking industry. For cold quenching, there is a black type blended with asphalt-based additives and a transparent type blended with special polymers. For semi-hot and hot quenching and tempering, there are heat treatment oils that use highly refined paraffinic mineral oil, providing excellent brightness and stability. As for water-soluble quenching liquids, **UNIQUENCH WG(N)** is recommended, which is based on polyalkylene glycol with rust inhibitors and preservatives.

● PRODUCT LINE of UNIQUENCH series



● TYPICAL PROPERTIES

● Transparent type cold quenching oils

Product Name		CR25	CQT10	CQT15	CQT20S	CQT20	CQV30
Color (ASTM)		L0.5	L0.5	L0.5	L0.5	L0.5	L0.5
Density (15°C)	g/cm ³	0.842	0.829	0.849	0.855	0.841	0.835
Kinematic viscosity (40°C)	mm ² /s	20.5	11.9	14.5	17.5	22.1	25.4
Flash point (COC)	°C	226	162	168	178	204	226
Thermal stability (JIS K2242)		Pass	Pass	Pass	Pass	Pass	Pass
<u>Cooling performance</u>							
Oil temperature	°C	80	80	80	80	80	80
Characteristic temperature	°C	502	603	599	611	639	667
Cooling time (800 to 400°C)	sec	4.8	3.4	3.5	3.1	2.7	2.7
H Value	cm ⁻¹	0.103	0.154	0.146	0.144	0.128	0.116
JIS K 2242 Category*		1-1	1-2	1-2	1-2	1-2	1-2

*: The type closest to representing the characteristics of the product according to JIS K2242 (heat treating fluids).

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

● Cold quenching oils containing asphalt-type additive

Product Name		CQ10W	CQ20S	CQ20	CQ30W
Color (ASTM)		D7.0	D8.0	D8.0	D4.0
Density (15°C)	g/cm ³	0.849	0.845	0.844	0.854
Kinematic viscosity (40°C)	mm ² /s	10.6	17.5	21.5	25.2
Flash point (COC)	°C	167	192	206	222
Thermal stability (JIS K2242)		Pass	Pass	Pass	Pass
<u>Cooling performance</u>					
Oil temperature	°C	80	80	80	80
Characteristic temperature	°C	596	629	648	621
Cooling time (800 to 400°C)	sec	3.2	2.6	2.5	3.0
H Value	cm ⁻¹	0.156	0.132	0.124	0.113
JIS K 2242 Category*		1-2	1-2	1-2	1-2

*: The type closest to representing the characteristics of the product according to JIS K2242 (heat treatment oils).

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

● **Oils for semi-hot quenching, gas nitrocarburizing treatment and tempering**

Product Name	MTP50	MT100	MT150	MT300	MT600
Color (ASTM)	L0.5	L0.5	L1.5	L2.0	L3.0
Density (15°C) g/cm ³	0.873	0.881	0.886	0.893	0.899
Kinematic viscosity (100°C) mm ² /s	7.2	10.4	13.6	21.4	31.6
Flash Point (COC) °C	222	262	278	292	316
Thermal stability (JIS K2242)	Pass	Pass	Pass	Pass	Pass
<u>Cooling performance</u>					
Oil temperature °C	80	120	120	160	160
Characteristic temperature °C	640	587	614	648	677
Cooling time (800 to 400°C) sec	3.0	5.1	5.4	6.2	6.8
H Value cm ⁻¹	0.126	0.090	0.088	0.078	0.074
JIS K 2242 Category*	2-1	2-1, 3-1	2-1, 3-1	2-2, 3-1	2-2, 3-2

*: The type closest to representing the characteristics of the product according to JIS K2242 (heat treatment oils).

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

● **Water-soluble quenching oil**

Product Name	WG(N)
Appearance	Light yellow, Liquid
Color (ASTM)	L0.5
Density (15°C) g/cm ³	1.075
Kinematic viscosity (40°C) mm ² /s	218
pH	8.9
Refractive index (20°C)	1.401

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




Handling Precautions

▼ Follow these precautions when handling this product.

UNIQUENCH CR 25

Composition :	Highly refined mineral oil
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.


UNIQUENCH CQT10, CQT15, CQT20S

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.
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. • 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.

UNIQUENCH CQT20, CQV30, MT100, MT150, MT300, MT600

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.


UNIQUENCH CQ10W, CQ20S

Composition :	Base Oil(s), Additives, Asphalt
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.

UNIQUENCH CQ20, CQ30W

Composition :	Base Oil(s), Additives, Asphalt
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.
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.

UNIQUENCH WG(N)

Composition :	Propylene glycol, Water
Hazard pictograms:	
Signal word :	Warning
Hazard Statement :	Causes mild skin irritation Causes serious eye irritation May cause an allergic skin reaction Suspected of causing cancer Suspected of damaging fertility or the unborn child
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. • Contaminated work clothing should not be allowed out of the workplace. • Obtain special instructions before use. • Avoid breathing 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. • 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. • If eye irritation persists : Get medical advice/attention. • 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.