



Metalworking Fluids for Industry

A company specialize in manufacturing Cutting Fluids,
Rust Preventives, Heat Treatment Fluids, Metal forming Fluids,
Metal Cleaner and Industrial Lubricants, etc.

DH Chemicals Co.,Ltd

A company that gives the first priority to the quality of products for customers.

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Metalworking Fluids for Industry

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Founded in 1975, DH Chemicals Co., Ltd has grown into a leading metalworking fluids manufacturer in parallel With the development of automotive industry, mechanical metal industry and electronics industry, achieving outstanding performance In metalworking fluids.

We make our best endeavors to develop metalworking fluids for diversified industrial activities through intensive investment in the development of products that suit the diversified and specialized working environment, extensive experiences and R&D activities for customer satisfaction.

Having introduced Olex brand and developing various activities for manufacturing lubricants of the best quality, we are striving to grow into a dynamic and progressive company. Furthermore to meet the industrial trend and increase corporate competitiveness, we renamed our our company DH Chemicals Co.,Ltd.

Building trust with customers through strict quality control and our dedication to customers, we are equipped with a system which enables it to supply the products of the best quality to our customers in time, thereby serving as a partner to customers for the improvement of quality, cost reduction, process improvement and the improvement of working environment.

We, DH Chemicals Co.,Ltd, will focus the corporate resources on the development of new products which will suit the high-tech, the requirements for environmental-friendliness and the attributes of advanced work skills in future, we will grow together with our customers



Olex® is the brand name of DH Chemical Co.,Ltd



We are the family

DH Chemical Co.,Ltd is an environmentally-friendly company that considers customers as its family and strives to become a global leader.



Contents

- **06** Cutting Oil _ Soluble
- **12** Cutting Oil _ Insoluble
- **16** Rust Preventive Oil_ Solvent dilution type, rust oil, lubricating anti-rust oil, vaporable, water-soluble
- **18.** Heat treatment oil _ non-water-soluble, water-soluble
- **20** Plastic working oil_ dry-type punching oil (for punching the aluminum fins for heat exchangers)
pressing oil, punching oil, press, drawing oil, pipe manufacturing oil
- **22** Industrial lubricants_ Hydraulic oil, gear oil, machine oil, slide-way oil
- **24** Metal cleaner_ alkaline type, neutral type, solvent type
- **26** Special lubricants_ Warm/hot forging, aluminum cold rolling, warm/hot forging,
parting agent for aluminum
- ◆ **04** About Research Institute ◆ **05** Production Facilities ◆ **27** Company History and Sales Offices Facilities

About Research Institute

Our Institute is to improve the performance and life of emulsion, protect the environment and improve customer satisfaction on product quality through the development of new products and quality improvement.

We also strive to handle customer complaints and provide the accumulated know-how for you to choose the most ideal emulsion products for the work process of your companies.

Equipped with the latest facilities and excellent research team, we will strive to develop more improved products.

■ Current State of Research Institute

*Company affiliated research institute

(established in Nov 2000), Technological Alliance with Daido Chemical Industry Co.,Ltd in Japan

大同化学工業株式会社
DAIDO Chemical Industry Co., Ltd



■ ISO Certifications

*KSA ISO 14001 : 2004 / ISO 14001 : 2004
*KSA 9001 : 2001 / ISO 9001 : 2008

Production Facilities

We are making our best endeavors to meet customer requirements through the use of carefully selected raw materials, strict process management and the use of latest production facilities.



Quality Certifications

- KS quality mark
- KSM 2173(cutting oil)
- KSM 2127(gear oil)
- KSM 2129(inflow oil)
- KSM 2126 (machine oil)



Best Quality Products

- Rust Prevention Oil
- Heat Treatment Oil

Water Soluble Cutting Oil

We are the family

BIOSTABLE TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (10% Sol)	Concentration (%)	Applications (Materials)
DH CUT 3100	Excellent biostability Excellent lubricity, rust prevention, cleaning ability Suitable for general cutting & grinding operation	Milky emulsion	9.3	5 ~ 10	Steel, non-ferrous metal
DH CUT 3100CF	Excellent lubricity and biostability Suitable for aluminium machining	Milky emulsion	9.3	5 ~ 10	Steel, non-ferrous metal
DH CUT 3100CF(A)	Improved anti-decay ability of DH CUT 3100CF	Milky emulsion	9.3	5 ~ 10	Steel, non-ferrous metal
DH CUT 3100AL	Excellent lubricity, anti-decay ability Suitable for aluminium 70 series operation	Milky emulsion	9.0	5 ~ 10	Non-ferrous metal
DH CUT 4100	Excellent biostability, rust prevention, tramp oil separation Long sump life	Milky emulsion	9.9	5 ~ 10	Steel, non-ferrous metal
DH CUT 4200P	Excellent lubricity for medium-heavy duty machining operation Excellent biostability	Light brown	9.9	5 ~ 10	Steel, non-ferrous metal
DH CUT 540	Excellent rust prevention and biostability Excellent cleaning and hard water stability	Light brown	9.3	5 ~ 10	Cast iron, steel
OLEX CUT 541	Excellent rust prevention and biostability Excellent cleaning and hard water stability	Milky emulsion	9.6	5 ~ 10	Cast iron, steel
OLEX CUT 5000	Excellent rust prevention and biostability Excellent cleaning and hard water stability	Light brown	9.7	5 ~ 10	Cast iron, steel

The above figures are mid-values.

EMULSION TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (10% Sol)	Concentration (%)	Applications (Materials)
DH CUT 350	General cutting & grinding operation Excellent tramp oil separation	Milky emulsion	9.6	5 ~ 10	Steel, non-ferrous metal
DH CUT 350H	Improved biostability & lubricity of DH CUT 350 Long sump life	Milky emulsion	9.4	5 ~ 10	Steel, non-ferrous metal
OLEX CUT 2000	Excellent rust prevention & biostability Excellent cleaning ability and hard water stability	Milky emulsion	9.7	5 ~ 10	Cast iron, steel
OLEX CUT 2000D	Excellent rust prevention & biostability Excellent cleaning ability and hard water stability	Milky emulsion	9.7	5 ~ 10	Cast iron, steel
OLEX CUT 6500	Excellent lubricity and biostability Suitable for cast iron and aluminium (by good anti-decay ability)	Milky emulsion	9.7	5 ~ 10	Steel, non-ferrous metal
OLEX CUT 6355	Excellent biostability, cleaning ability, anti-foaming and anti-decay ability \ Suitable for aluminium and copper operation	Milky emulsion	9.7	5 ~ 10	Steel, non-ferrous metal
OLEX CUT 6200DS	Excellent rust prevention, biostability and tramp oil separation. Long sump life	Milky emulsion	9.9	5 ~ 10	Cast iron, steel
OLEX CUT 9000AF	Amine and boron free environment-friendly product Excellent lubricity, cleaning ability and anti-decay ability	Milky emulsion	9.0	5 ~ 10	Steel, non-ferrous metal

NATURAL OIL TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (10% Sol)	Concentration (%)	Applications (Materials)
DH NATURAL 100	1. Excellent lubricity (by use of vegetable oils (rapeseed and soybean) or synthetic ester. Provide Improved machineability, surface finishing, tool life Suitable for all metal including aluminium machining	Milky emulsion	9.6	5 ~ 10	Steel
DH NATURAL 200		Milky emulsion	9.4	5 ~ 10	Steel, non-ferrous metal
DH NATURAL 200RS	2. Thanks to its properties inhibiting the generation of microorganisms, it prevent the fluid from decomposition.	Milky emulsion	9.4	5 ~ 10	Steel, non-ferrous metal
DH NATURAL 200D		Milky emulsion	9.4	5 ~ 10	Steel, non-ferrous metal
	3. Ideal alternative soluble cutting oil to neat cutting oil				

The above figures are mid-values.

SEMI-SYNTHETIC TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (10% Sol)	Concentration (%)	Applications (Materials)
DH CUT 920TC	Excellent lubricity, rust prevention, anti-foaming and biostability Excellent performance for bearing grinding operation	translucent white	9.8	3 - 10	Cast iron, steel
DH CUT 500F	Excellent machine cleanability, emulsion stability, biostability General cutting & grinding operation	Green translucent	9.4	5 - 10	Cast iron, steel
CIMIRON PA-200S	Excellent cleaning ability, lubricity Suitable for aluminium medium-heavy duty operation	translucent white	9.7	5 - 10	Steel, non-ferrous metal
DH CUT 480	Excellent anti-decay ability, cleaning ability, biostability Suitable for general cutting & grinding of aluminium	translucent white	9.6	5 - 10	Steel, non-ferrous metal
DH CUT 4700D	Excellent biostability, cleaning, anti-foaming, anti-decay ability Excellent performance for aluminium piston operation	translucent white	9.1	5 - 10	Steel, non-ferrous metal
OLEX CUT 5000MG	Excellent lubricity, biostability, cleaning, anti-foaming, anti-decay ability Suitable for magnesium, aluminium operation	Ivory white translucent	9.2	5 - 10	Steel, non-ferrous metal, magnesium
OLEX CUT 5000MG(B)	Excellent lubricity, biostability, cleaning, anti-foaming and anti-decay ability Suitable for magnesium, aluminium operation	Ivory white translucent	9.3	5 - 10	Steel, non-ferrous metal, magnesium
OLEX CUT 5000MG(E)	Excellent biostability, cleaning, anti-foaming, anti-decay ability Suitable for magnesium, aluminium operation	Ivory white translucent	9.3	5 - 10	Steel, non-ferrous metal, magnesium
OLEX CUT 6000	Excellent rust prevention, machine-cleaning, emulsion stability and biostability. General cutting and grinding operation.	Ivory white translucent	9.7	5 - 10	Cast iron, steel
OLEX CUT 6100	Excellent rust prevention, machine-cleaning, emulsion stability and biostability. General cutting and grinding operation.	Ivory white translucent	9.7	5 - 10	Cast iron, steel
OLEX CUT 6100SJ	Excellent rust prevention, machine-cleaning, emulsion stability and biostability. Suitable for camshaft operation.	Ivory white translucent	10.3	5 - 10	Cast iron, steel
OLEX CUT 6400FEAL	Excellent rust prevention, machine-cleaning, emulsion stability and biostability. Suitable for FE, AL operation using auto-dilution apparatus.	Ivory white translucent	9.6	5 - 10	Steel, non-ferrous metal
DH CUT 2100	Excellent rust prevention, machine-cleaning, emulsion stability and biostability.	Ivory white translucent	9.7	5 - 10	Cast iron, steel
OLEX CUT 3000	Excellent rust prevention, biostability and dissolubility. Long life time without replacement.	translucent white	9.8	5 - 10	Cast iron, steel

The above figures are mid-values.

CHEMICAL-MECHANICAL POLISHING TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (10% Sol)	Concentration (%)	Applications (Materials)
OLEX CUT P NO.1	Nano-scale grinding and excellent surface roughness. Suitable for precision grinding operation of carbon steel & Si.	Ivory white emulsion	10.5	20 - 50	Steel, Si
OLEX CUT P NO.2	Nano-scale grinding and excellent surface roughness. Suitable for precision grinding operation of carbon steel & Si.	Ivory white emulsion	10.5	Undiluted Solution	Steel, Si

The above figures are mid-values.

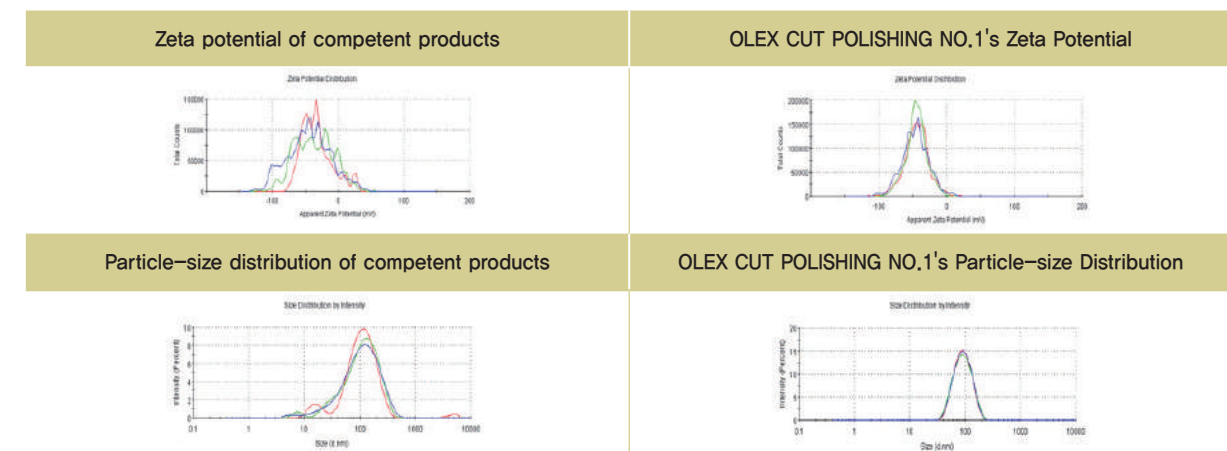
OLEX CUT POLISHING NO.1 and NO.2 are chemically stable and has excellent stability, strength and adsorption properties. With great zeta potential, it has excellent silica dispersion have ability and particle size is consistent and mono-disperse properties. Due to these factors and high alkaline value, it's suitable for the grinding operation for silicon semiconductor, wafer and tempered glass and also effective for chemical etching. It's best products can be used for the industry of fibers, paper and casting as well as ceramic and organic films requiring precision polishing.

Features

- (1) Excellent chemical strength and adsorption performance.
- (2) With great zeta potential values, it has excellent dispersion stability.
- (3) With uniform particle size and high alkaline values, it is effective for chemical etching.
- (4) It can be applied to ceramic, organic films, paper and casing as well as silicon and tempered glass.
- (5) Insignificant viscosity variation despite working variables casting due to concentration and solid content ratio.
- (6) Separate cleaning is not require thanks to its excellent cleaning performance.

Zeta Potential

Zeta Potential is a unit for the size of the repelling force or attraction between the particles. The measurement of zeta potential allows it to understand the dispersion mechanism and control electrostatic dispersion. In other words, with the increased zeta potential, the repulsive forces between the particles will grow whereas with decreased zeta potential, the cohesive strength between particles will grow. Thus the increase of absolute value of zeta potential increases stability



○ SYNTHETIC TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (3% Sol)	Concentration (%)	Applications (Materials)
DH CUT 530S	Excellent anti-foaming, lubricity, chip precipitation. Suitable for the precision grinding of optical lens.	Fluorescent color, Transparent	9.4	3 ~ 10	Optical Lens
DH CUT 630H	Excellent machine cleanability, dissolubility. Suitable for grinding operation requiring anti copper corrosion.	Colorless, Transparent	9.5	3 ~ 10	Steel, Copper
DH CUT 630HN	Excellent machine cleanability. Less odor and skin irritation. Suitable for cutting and grinding operation.	Green, Transparent	9.5	3 ~ 10	Steel, Non-ferrous metal ,
DH CUT 700	Excellent lubricity, biostability and dissolubility. Long life time with transparency.	Green, Transparent	9.6	3 ~ 10	Steel, Non-ferrous metal ,
DH CUT 700H	Excellent anti-foaming, rust prevention, biostability and dissolubility. Long life time with transparency.	Green, Transparent	9.7	3 ~ 10	Cast iron, Steel
DH CUT 701	Excellent machine cleanability, rust prevention, biostability and dissolubility. Long life time with transparency and less stickness.	Colorless, Transparent	9.8	3 ~ 10	Cast iron, Steel
DH CUT 702	Excellent detergency, corrosion resistance and rust resistance. Suitable for grinding process requiring chip detergency and rust resistance.	Transparent, Fluorescent color, Transparent	9.8	3 ~ 10	Cast iron, Steel
DH CUT 702H	Excellent lubricity, rust prevention, machine cleanability and biostability. Suitable for grinding operation requiring chip cleanability.	Transparent, Fluorescent color,	9.4	3 ~ 10	Cast iron, Steel
DH CUT 703	Excellent machine cleanability and chip precipitation. Suitable for grinding operation of ferrous metal & aluminum.	Colorless, Transparent	9.6	3 ~ 10	Steel , Al
DH CUT 703D	Excellent anti-foaming, biostability. Less odor and stickness. Suitable for grinding of steel & aluminum.	Transparent, Fluorescent color,	9.2	3 ~ 10	Steel , Al
DH CUT 755	Excellent lubricity, anti-foaming, machine cleanability, biostability and dissolubility. Suitable for general cutting and grinding operation.	Transparent, Fluorescent color,	9.8	3 ~ 10	Cast iron, Steel
DH CUT 760	Excellent machine cleanability, anti-foaming, biostability and dissolubility. Suitable for general grinding operation.	Transparent, Fluorescent color,	9.8	3 ~ 10	Cast iron, Steel
DH CUT 760G	Excellent anti-foaming, rust prevention. Suitable for general grinding operation.	Transparent	9.8	3 ~ 10	Steel, Non-ferrous metal ,

The above figures are mid-values.

○ SYNTHETIC TYPE

Product Name	Features and Applications	Appearance (Diluted Solution)	p H (3% Sol)	Concentration (%)	Applications (Materials)
OLEX CUT 7000	Excellent rust prevention, lubricity, biostability and dissolubility. Suitable for the cutting and grinding operation.	Fluorescent transparent	9.7	3 ~ 10	Cast Iron, Steel
OLEX CUT 7000H	Excellent rust prevention, lubricity, biostability and dissolubility. Suitable for cutting and grinding operation requiring high lubricity.	Fluorescent transparent	9.7	3 ~ 10	Cast Iron, Steel
OLEX CUT 7100	Excellent rust prevention, lubricity, anti-foaming, chip precipitation. Suitable for cutting and grinding operation of glass substrate, optical lens and ferro-alloy.	Colorless, Transparent	9.4	3 ~ 10	Glass Cast Iron, Steel
OLEX CUT 7100SEVT	Excellent rust prevention, lubricity, anti-foaming and chip precipitation. Suitable for cutting and grinding operation of glass substrate.	Colorless, Transparent	8.1	3 ~ 10	Tempered Glass for mobile phones
OLEX CUT 7100TG	Excellent lubricity, anti-foaming and chip precipitation. Excellent anti-detachability of UV INK for glass substrate.	Colorless, Transparent	7.9	3 ~ 10	Glass Cast Iron, Steel
OLEX CUT 7100G	Excellent lubricity, anti-foaming and glass precipitation. Suitable for PDP, LCD, LED tempered glass.	Colorless, Transparent	8.0	3 ~ 10	Glass
OLEX CUT 7200SW	Excellent lubricity and silicon carbide dispersibility. Suitable for SLURRY TYPE slicing operation.	Colorless, Transparent	6.9	원액	Si
OLEX CUT 7200DW	Excellent lubricity and silicone dispersibility. Suitable for DIAMOND TYPE slicing operation.	Colorless, Transparent	9.7	3 ~ 10	Si Cast Iron, Steel
OLEX CUT 7300	Excellent lubricity, anti-foaming and silicone dispersibility. Suitable for silicon cathode and ring.	Colorless, Transparent	9.6	3 ~ 10	Si Cast Iron, Steel
OLEX CUT 7400	Suitable for precision grinding operation using synthetic type automatic dilution device.	Colorless, Transparent	10.0	3 ~ 10	Cast Iron, Steel
OLEX CUT 7400AR	Excellent rust prevention, lubricity and anti-foaming. Suitable for cutting and grinding operation.	Colorless, Transparent	9.9	3 ~ 10	Cast Iron, Steel
OLEX CUT 7500	Excellent lubricity, biostability and dissolubility. Suitable for cutting and grinding operation requiring high-lubricity.	Colorless, Transparent	8.9	3 ~ 10	Steel, Non-ferrous metal
OLEX CUT 7500FE	Excellent lubricity, biostability and dissolubility. Suitable for cutting and grinding operation of ferro-alloys requiring high-lubricity.	Colorless, Transparent	9.3	3 ~ 10	Steel, Non-ferrous metal

Neat Cutting Oil

Oily type (chlorine-free)

Product Name	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DH POLISHING OIL 21	Suitable for polishing optical lens. Excellent surface finishing and chip settling	3.5	120	1a	B	-	-
DH CUTOL 103	Low viscosity and high flash point Suitable for grinding operation	3.0	120	1a	B	-	-
DH CUTOL 10H	Suitable for light-duty cutting of non-ferrous metals Excellent cooling ability and low odor	9.0	160	1a	B	-	-
DH CUTOL 113G	Exclusively for CNC automatic lathe processing. Tool life extension. Suitable for Piston shaft operation of steel & non-ferrous metals.	12.5	160	1a	C	-	-
DH CUTOL 112H	Suitable for multi-axis automatic lathe machining of non-ferrous metals. Excellent high flash point and mist-prevention effect.	14.0	206	1a	C	-	-
DK ECOCOOOL RS-25	Eco-friendly MQL oil.	24.0	256	1a	C	-	-
DH CUTOL 18CF	Suitable for high speed cutting operation of general steel & non-ferrous metals. Less scattering & fuming.	20.0	200	1a	B	-	-

Grinding Oil (Chlorine-free)

Product Name	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DH CUTOL FG-10	Excellent grindability and pressure resistance. (Prevent burning during grinding)	9.0	190	1a	A	-	-
DH CUTOL FG-20		40.0	220	1a	A	-	-
OLEX CUTOL 100	Suitable for lapping of steel ball. Excellent grindability and chip cleanability.	6.5	150	1a	B	-	A
DH CUTOL SG-10H	High speed grinding oil for bearings. Produce less mist, Excellent grindability.	9.0	166	1a	B	-	-
DH CUTOL SG-13H	Grinding oil with high flash point. Excellent scattering prevention and cleanability.	12.0	200	1a	B	-	A
OLEX CUTOL SG-20H	Odorless gear grinding oil. Excellent scattering prevention.	12.1	210	1a	B	-	A
OLEX CUTOL FG-13H	Large caliber tooth grinding oil. Excellent grindability and Extreme pressure. (Prevent burning during grinding)	17.0	200	1a	A	-	-

A: Below5% B:5-10% C:Above 10%
The above figures are mid-values.

Sulfur type (Chlorine-free)

Product Name	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DAICUTOL MS-151K-2	Suitable for Bearing super finishing. Excellent lubricity, cleanability and oil stain prevention.	2.7	80	1a	B	-	A
MS CONC-(K)	Suitable for Bearing super finishing,(high viscosity product) Excellent lubricity, less scattering.	3.1	110	1a	B	-	A
OLEX CUTOL 803	Suitable for honing operation. Excellent penetrability, cleanability and surface finishing.	3.8	130	1a	B	-	A
DAICUTOL GIA-40A	Suitable for automatic lathe machining. Suitable for processing alloy steel reaming, tapping, etc.	13.0	160	2a	C	-	A
DAICUTOL GIA-40	Suitable for alloy steel gear shaving, hobbing, End-Mill machining. Suitable for lathe turning, milling, drilling, reaming, tapping of various steel.	26.0	200	2a	C	-	A
DAICUTOL GIA-63	Suitable for broaching, drilling, reaming and tapping of various steel	13.5	155	3b	C	-	A
DAICUTOL GIA-77	Suitable for broaching, drilling, reaming and tapping of various steel	20.0	160	4a	B	-	A
OLEX CUTOL 311	Containing a large amount of lubricating agents. Excellent lubricity and pressure resistance	11.0	165	1a	C	-	A
OLEX CUTOL 315	Low-odor and prolonged tool life	14.5	170	1a	C	-	A
OLEX CUTOL 330CF	Suitable for difficult cutting requiring lubricity and pressure resistance. Less odor and excellent surface finishing.	31.0	210	3b	C	-	A
OLEX CUTOL 420CF	Suitable for difficult cutting requiring lubricity and pressure resistance.	20.0	184	4c	C	-	A
DH CUTOL 717CF	Suitable for processing gears and valves of various steel Less mist and odor. Excellent Machineability.	17.5	190	4a	C	-	A
DH CUTOL 723		23.0	170	4a	B	-	A
DH CUTOL 725CF		27.0	190	1b	C	-	A

A: Below5% B:5-10% C:Above 10%
The above figures are mid-values.

Chlorine-type

Product Name	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DH CUTOL 804D	Suitable for honing operation Excellent penetrability and surface finish	4.1	120	1a	A	A	-
DH CUTOL 109	Suitable for automatic lathe cutting, etc. General-purpose cutting for general steel and non-ferrous metal	9.3	160	1a	A	A	-
DAICUTOL RL-101	General-purpose cutting for general steel and non-ferrous metal Excellent detergency and less skin irritation	9.5	160	1a	A	A	-
DH CUTOL 18L	Suitable for high-speed processing of general steel and non-ferrous metal Less scattering and fuming prevention.	20.0	200	1a	A	A	-
DH CUTOL 123	Suitable for gear shaving, hobbing, etc. General purpose cutting oil for general steel and alloy steel	25.0	200	1a	C	B	-
DH CUTOL 123H	Suitable for high-speed processing of general steel and non-ferrous metal Less oil mist and excellent oxidation stability	20.0	220	1a	C	B	-
DH CUTOL PS-102DK	Suitable for heavy-duty cutting of gears. Excellent surface finishing and high flash point.	30.0	220	1a	C	B	-
OLEX CUTOL 200	Suitable for general purpose cutting and grinding for steel and non-ferrous metal Less odor and excellent anti-scattering performance	23.0	200	1a	A	A	-

Electric Discharge Machine oil

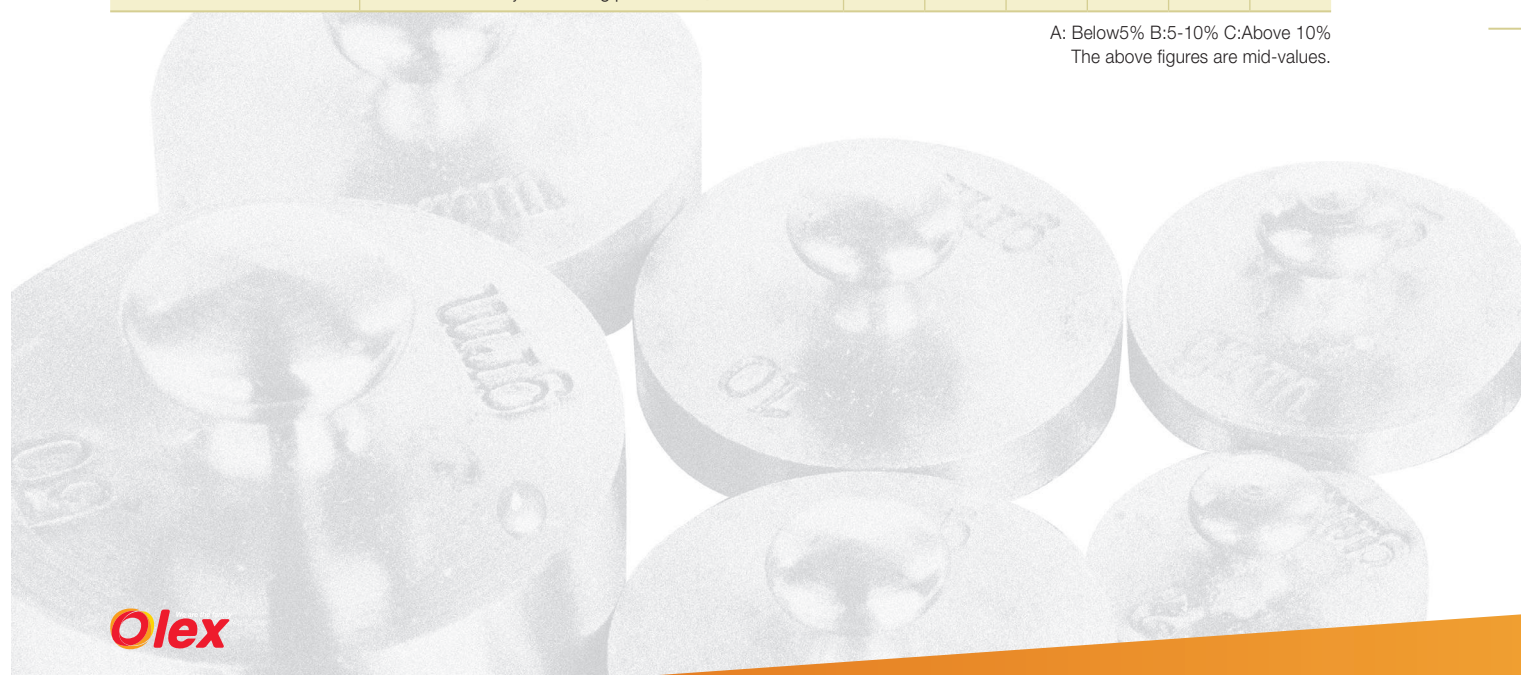
Product	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DH ELECTRIC SPARK OIL	Suitable for special alloy steel and ultra-light alloys. High flash point and less odor and fuming.	3.0	120	1a	-	-	-
DH ELECTRIC SPARK OIL 20	Suitable for special alloy steel and ultra-light alloys. Excellent cleanability and cooling performance.	2.0	110	1a	-	-	-

A: Below5% B:5-10% C:Above 10%
The above figures are mid-values.

Chlorine-sulfur type (heavy duty)

Product Name	Features and Applications	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Copper Corrosion (100°C)	Fat (%)	Chlorine (%)	Sulphur (%)
DH CUTOL 27N	Suitable for processing various valves, clutch master cylinders, etc. Suitable for automotive parts manufacturing process.	12.0	160	1b	A	A	A
DH CUTOL 115	Suitable for six-axis automatic lathe machining. Long tool life and fuming prevention.	15.0	180	1b	A	A	A
DH CUTOL 100P	Exclusively CNC automatic lathe machining For processing piston shaft of steel and non-ferrous metal Excellent anti-scattering performance and prolonged tool life	15.5	180	1a	C	A	A
DH CUTOL 200P		23.5	196	1a	C	A	A
DH CUTOL 213	Suitable for tapping, gun drilling, deep hole boring, etc.	16.0	160	4	A	A	A
DAICUTOL PS-513N	Suitable for tapping, gun drilling, deep hole boring, etc.	16.0	160	4	A	A	A
DH CUTOL 216	Suitable for precision processing such as broaching deep hole boring, tapping, etc.	12.0	146	4	C	A	A
DH CUTOL 243S	Suitable for difficult cutting, Excellent surface roughness and prolonged tool life	19.0	148	4	C	C	B
DH CUTOL 725	For processing gears of various steel. Less mist and odor, Excellent machineability	27.0	202	1a	C	A	A
DH CUTOL 725H	Suitable for heavy-duty processing of various gears. Excellent machineability and surface roughness	27.0	210	1a	C	C	A
OLEX CUTOL 323D	Suitable for automatic lathe machining of various materials, Excellent lubricity and mist-prevention	27.0	204	1b	C	B	A
OLEX CUTOL 328	For tapping M / C only. Prolonged tap life and improved productivity	29.0	170	1a	C	C	A
OLEX CUTOL 435	Suitable for precision processing with excellent pressure-resistance	34.0	205	4	C	A	A

A: Below5% B:5-10% C:Above 10%
The above figures are mid-values.



○ Solvent Diluted Rust Prevention Oil

Product Name	Features and Applications	Specs	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Film Type	Period of protection
DAIRUST D-361D	· Short-term rust control for various types of gears, bearings, bolts and nuts · Less odor and easy to clean · Short-term rust control for engine shaft Engine camshaft and short-term rust.	NP-3	1.2	46	Oily	Indoor, 1 month
ANTIRUST 332A	· Excellent lubricity to the OT line dedicated anti rust oil	NP-3	7.6	92	Oily	Indoor, 6 month
ANTIRUST 10	· Cleaning and short-term rust control for precision packages(quick-dry type)	Off-standard	Below 1.0	Room Temperature	Oily	—
ANTIRUST 20	· Excellent water replacement performance. Suitable for rust control after water rinsing	Off-standard	Below 1.0	Room Temperature	Oily	—
ANTIRUST 20(2)	· Leaves no residues, Anti-corrosive film is less sticky	Off-standard	Below 1.0	Room Temperature	Oily	—
ANTIRUST 25	· Cleaning and short-term rust control for wires(quick-drying)	Off-standard	1.0	Room Temperature	Oily	Indoor, 3 month
ANTIRUST 23B	· Cleaning and short-term rust control for wires(quick-drying) · Suitable for the rust control of wires (welding rods, etc.) and COL	Off-standard	1.0	Room Temperature	Oily	Indoor, 5 month
ANTIRUST 210S	· Universal type, Suitable for general machinery parts.	NP-3	1.8	46	Oily	Indoor, 3 month
ANTIRUST 220C	· Excellent water replacement performance and rust-control performance.	NP-3	2.0	50	Oily	Indoor, 3 month
ANTIRUST 220S	· Rust control of general machinery parts · Rust control of automobile parts · Excellent water replacement, chlorine resistance and stain resistance · Rust control of engine cap shaft for export	NP-3	1.9	46	Oily	Indoor, 6 month
ANTIRUST 303D	· Mid-term rust control for raw materials, bolts and nuts · Excellent water replacement, chlorine resistance and stain resistance	NP-3	2.3	60	Oily	Indoor, 6 month
ANTIRUST 303DA	· General-purpose rust preventing oil with less odor and excellent water replacement performance and rust prevention performance	NP-3	2.2	60	Oily	Indoor, 3month
ANTIRUST 303DS	· Final rust control for general machinery parts · Long-term rust control of indoor articles	NP-3	2.5	60	Oily	Indoor, 6 month
ANTIRUST 303S	· Final rust control for general machinery parts and sintered Fe-based alloys · Long-term rust control of indoor articles	NP-3	3.2	58	Oily	Indoor, 6 month
ANTIRUST 307	· For the lubrication and rust control of hard steel wires, Forms coated films. · Excellent water replacement performance and degreasing performance.	NP-3	4.0	110	Oily	Indoor, 2month
ANTIRUST 330K	· For the lubrication and rust control of hard steel wires, Forms coated films · Less odor, Excellent oxidation stability, water replacement performance and degreasing performance	NP-3	2.8	84	Oily	Indoor, 2month
ANTIRUST 310	· Long-term rust control for raw materials, castings, forgings · Excellent water replacement performance and rust prevention performance .	NP-3	2.6	48	Oily	Indoor, 3month
ANTIRUST 320	· Long-term rust control for raw materials, castings, forgings · Excellent water replacement performance and rust prevention performance	NP-3	4.0	82	Oily	Indoor, 6 month
ANTIRUST 320H	· Long-term rust control for various agricultural machinery parts and automobile parts for export purpose	NP-3	6.6	68	Oily	Indoor, 6 month
ANTIRUST 320Y	· Long-term rust control for raw materials, castings, forgings and packages for export · Less odor and excellent rust prevention performance	NP-3	4.6	72	Oily	
TORUST GH	· And anti-corrosive materials, castings, forgings, long-term anti-rust packaging for export.	NP-3	4.6	72	Oily	
DAIRUST D-261D	· Final rust control for outdoor machinery parts	NP-2	10.5	6.2	Oily	Indoor, 12 month
ANTIRUST 720S	· Long-term outdoor rust control for castings, forgings and packages for export · Amber and semi-rigid transparent dry film and use convenience.	NP-19	—	Above 38	Wax	Indoor, 12 month
ANTIRUST 720	· Long-term outdoor rust control for castings, forgings and packages for export · Amber and semi-rigid transparent dry film and excellent rust prevention performance.	NP-19	—	Above 38	Wax	Indoor, 12 month

○ Rust Preventing Lubricant

Product Name	Application	Specs	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Film Type	period of protection
TORUST RM-900	Lubrication + Rust Control, For general machinery parts, Rust pickling oil for steel sheet	NP-9	10.0	162	Oily	Indoor, 3 month
OLEX COAT 2017	Lubrication + Rust Control for bearings	NP-8	18.5	150	Oily	Indoor, 6 month

○ Volatile Rust Preventing Oil

Product Name	Application	Specs	Kinematic Viscosity (40°C;mm ² /s)	Flash Point (°C)	Film Type	Period of protection
ANTIRUST 1011	Suitable for controlling rust in Engine / Fuel System, Gear Box, especially closed areas or the areas which are hard to access.	NP-20-1	12.3	130	Oily	—
OLEX COAT 1015		NP-20-1	5.12	112	Oily	—

○ Water Soluble Rust Preventing Oil

Product Name	Application	Concentration (%)	pH (5%)	Appearance (Diluted Solution)	Film Type	Period of protection
ANTIRUST 200W	Suitable for controlling rust in Engine / Fuel System, Gear Box, especially closed areas or the areas which are hard to access.	3-10	10.4	Lemon yellow, Transparent	—	Indoor, Inter Process
ANTIRUST 300X	Water soluble rust preventives. Suitable for rust control between processes and water pressure test. Rust prevention performance is maintained at high temperature.	3-10	10.5	Lemon yellow, Transparent	—	Indoor, Inter Process
OLEX COAT 200	Rust control after water-soluble process. Rust preventing additives for water soluble processing oil. Short-term rust control for indoor articles	3-10	9.8	Light yellow, Transparent	—	Indoor, Inter Process
OLEX COAT 200H	Rust control after water-soluble process. Rust preventing additives for water soluble processing oil. Short-term rust control for indoor articles. Excellent rust prevention performance with hard water.	3-10	10.0	Yellow, Transparent	—	Indoor, Inter Process
TORUST SW-1	Emulsion type water-soluble rust preventing lubricant. Suitable for the rust control of various machinery parts, bolts and nuts.	10-20	7.5	Milky white emulsion	Oily	Indoor, 3 months
OLEX COAT 102	Suitable for the rust control after the manufacture of pipes. Less emulsion phenomenon after the drying of film.	20-30	7.6	Milky white emulsion	Oily	Indoor, 3 months

The above figures are mid-values.



Cold Type Quenching Oil

Product Name	Features and Applications	Kinematic Viscosity (40°C, mm ² /s)	Flash Point (°C)	Cooling Performance		Operation Temperature (°C)
				Characteristic Temperature(°C)	800 - 400°C (Cooling Seconds)	
QUENCH OIL-125	<ul style="list-style-type: none"> Sufficient hardenability There is no risk of deformation or crack. Thus this product is suitable for quenching the materials which are difficult to be hardened or alloy steel. QUENCH OIL 100S has excellent water-oil separation. 	21.0	200	Above 580	Below 4.0	40 ~ 80
QUENCH OIL-100		21.0	202	Above 580	Below 4.0	40 ~ 80
QUENCH OIL-100S		21.0	200	Above 580	Below 4.0	40 ~ 80
QUENCH OIL-100H	<ul style="list-style-type: none"> Excellent oxidation stability 	21.2	200	Above 580	Below 4.0	40 ~ 80
QUENCH OIL N-2	<ul style="list-style-type: none"> Excellent thermal stability, brightness and quenching property below 100 °C. Since there is no risk of deformation or crack during quenching, this product is used for bearing, gears, machine and automobile parts. 	21.5	198	Above 580	Below 4.0	40 ~ 100
QUENCH OIL N-101		22.0	202	Above 580	Below 4.0	40 ~ 100

Semi Type Quenching Oil

Product Name	Features and Applications	Kinematic viscosity (mm ² /s)		Flash Point (°C)	Cooling Performance		Operation Temperature (°C)
		40°C	100°C		Characteristic Temperature(°C)	800 - 400°C (Cooling Seconds)	
MARTEMPER B-52	<ul style="list-style-type: none"> With the viscosity which is lower than the conventional high temperature heat treatment oil, this product is cost and has excellent degreasing properties. Used for bright and gas carburized quenching. Suitable for bearings, gears and automobile parts. MARTEMPER B-56D has excellent oxidation stability. 	70.5	9.4	226	Above 500	Below 5.0	80 ~ 120
MARTEMPER B-56		115.0	12.4	236	Above 500	Below 5.0	80 ~ 120
MARTEMPER B-56D		115.0	12.5	238	Above 500	Below 5.0	80 ~ 120

Hot Type Quenching Oil

Product Name	Features and Applications	Kinematic viscosity (mm ² /s)		Flash Point (°C)	Cooling Performance		Operation Temperature (°C)
		40°C	100°C		Characteristic Temperature(°C)	800 - 400°C (Cooling Seconds)	
MARTEMPER B-90	<ul style="list-style-type: none"> Excellent thermal oxidation stability at high temperature and there is no risk of deformation or crack. Used for cast iron, general carbon steel or alloy steel carburized products. 	270	21.0	260	Above 600	Below 6.0	120 ~ 150
MARTEMPER B-90H		230	18.5	260	Above 600	Below 6.0	120 ~ 150
MARTEMPER B-154		460.0	30.0	310	Above 600	Below 6.0	150 ~ 200

Water-Soluble Quenching Oil

Product Name	Features and Applications	Features and Applications	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	PH (Undiluted Solution)	Operational Concentration(%)	
						High-frequency quenching	Sub-quenching
SOLUBLE QUENCH NT-7	<ul style="list-style-type: none"> Water soluble quenching coolant containing PAG as main component. Used for various purposes from high-frequency quenching and normal quenching. Excellent crack and deformation preventing ability 	PAG Polymer	1.06	460	10.1	5 ~ 10	10 ~ 20
SOLUBLE QUENCH ZN	<ul style="list-style-type: none"> Water-oil quenching. Suitable for the quenching for the purpose of cooling performance for quenching. Suitable for high-frequency quenching. Excellent deformation prevention ability and corrosion resistance. Low-concentration. All types of quenching is possible. 	POLYISO-BUTYLENE Polymer	1.15	1000	11.6	2 ~ 4	-
SOLUBLE QUENCH NT-3	<ul style="list-style-type: none"> All-purpose water soluble coolant for quenching. Can be used for various types of materials from high-frequency to material quenching. 	PEG Polymer	1.08	100	10.2	5 ~ 20	15 ~ 25
SOLUBLE QUENCH DS	<ul style="list-style-type: none"> Sub-quenching of materials and parts and heavy alloy. High frequency quenching for steel and high steel alloys. 	PAG Polymer	1.08	590	10.4	5 ~ 10	10 ~ 20
SOLUBLE QUENCH TY-300	<ul style="list-style-type: none"> All-purpose water soluble coolant for quenching. Can be used for various types of materials from high-frequency to material quenching. Excellent crack resistance at low concentration compared to competent products. 	PAG Polymer	1.06	450	10.0	5 ~ 15	15 ~ 25

The above figures are mid-values.



○ Dry Type Punching Oils (for Heat Exchanger Aluminum Fin)

Product Name	Features and Applications	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C)	Flash Point (°C)	Appearance
DH PUNCHING OIL G-1(7B)	Product approved by company L for lubricity, drying ability and quality.	0.76	1.4	54	Colorless, Transparent
DH PUNCHING OIL 106	Exclusively for plasma materials. Excellent hydrophilic performance	0.76	1.4	54	Colorless, Transparent
DH PUNCHING OIL 580A	Product approved by company L for lubricity, drying ability and quality.	0.76	1.4	54	Colorless, Transparent
DH DRAW H-7A	Punching oil for high pitch fins. Excellent lubricity	0.77	1.6	58	Colorless, Transparent
DH PUNCHING OIL 23H	High lubricity punching oil. Suitable for Industrial heat exchangers	0.82	2.6	110	Colorless, Transparent

○ Cold Forging Lubricants

Product Name	Features and Applications	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C)	Flash Point (°C)	Applications (materials)
DH DRAW RP 60CF	Chlorine-free forming oil for cold forging.	0.90	37	220	Common Steel High-carbon Steel SUS Special Steel
DH HEADING OIL 20N	Forming oil for the cold forging of various bolts and nuts. Excellent chip separation ability	0.89	28	200	
DH FORMER OIL 24		0.88	25	170	
DH DRAW 100H	Forming oil for the cold forging. Prolonged tool life	0.92	35	180	
DH HEADING OIL 50	Forming oil for Middle to large sized bolts. Excellent pressure resistance.	0.90	40	220	
DH HEADING OIL 50SH		0.91	55	206	
DH HEADING OIL 70D	Forming oil for the cold forging of various bolts. Excellent chip separation ability	0.86	30	220	

○ Punching Oil (Steel and Non-ferrous metal)

Product Name	Features and Applications	Kinematic Viscosity (40°C)	Appearance
DH DRAW 800LB	Quick-drying punching oil leaving no residues.	1.0	Colorless, Transparent
DH DRAW 800H	High-speed working punching oil for large motor core. Excellent lubricity.	1.5	Colorless, Transparent
DH DRAW 23HB(H)	Punching oil for motor core. Leaving no residues.	1.4	Colorless, Transparent
DH DRAW 2300DA	Punching oil for motor core. Excellent rust resistance	1.4	Colorless, Transparent
DH PUNCHING OIL S	Punching oil for various non-ferrous metals, Excellent lubricity and drying ability	1.4	Colorless, Transparent
DH DRAW H-7B	High lubricity punching oil for various types of refrigerators. Suitable for high pitch	1.7	Colorless, Transparent
DH DRAW 33L	Punching oil for the lead-frame of semiconductor. Excellent detergency.	2.4	Colorless, Transparent
DH DRAW 33D	Punching oil for the lead-frame of semiconductor. Excellent lubrication and high viscosity.	5.8	Colorless, Transparent
DH DRAW 33LD	Punching oil for the lead-frame of semiconductor. Excellent lubrication and high viscosity.	3.2	Colorless, Transparent
DH DRAW 173A	Punching oil for non-ferrous metals. Excellent detergency, drying ability and process improving performance	1.4	Colorless, Transparent
DH DRAW H-2	Punching oil for various non-ferrous metals, PET materials	1.4	Colorless, Transparent

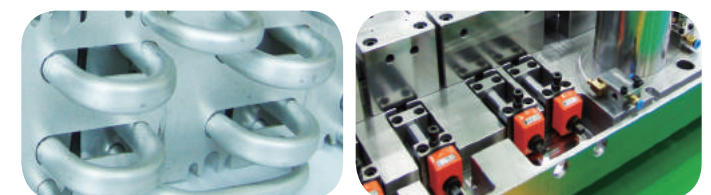
○ Press. Drawing Oil

Product Name	Features and Applications	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C)	Flash Point (°C)	Appearance
DH DRAW AL-2KET	Punching and pressing oil for various non-ferrous metals. Suitable for the high-speed processing of terminal parts	0.83	3.0	1a	Colorless
DH DRAW AL-3	Punching and pressing oil for various non-ferrous metals.	0.87	8	1a	Lemon yellow
DH DRAW AL-4	Improved AL-3lubricity	0.87	9.5	1a	Lemon yellow
DH PRESS 15T	Press oil for aluminum condenser case. Excellent filtration.	0.87	15	1a	Lemon yellow
DH PRESS FB-100H	Chlorine-free fine blanking oil. Excellent extreme-pressure resistance and lubricity.	0.96	198	4c	Dark brown
DH DRAW 206A(TH)	Chlorine free deep drawing oil. Excellent extreme-pressure resistance and rust prevention ability.	0.91	90	1b	Brown
OLEX DRAW 700	High lubricity drawing oil for SUS. Excellent machineability.	1.02	92	4c	Lemon yellow
DH PRESS 1150H-4	Electrolytic condenser case processing oil. Excellent lubricity.	0.88	140	1a	Lemon yellow
DH PRESS 850SA	Calibration oil for various sintered products. Excellent lubricity and blackening treatment ability	0.87	5	1a	Lemon yellow
OLEX FIN 536	Forming oil for fin tubes of heat exchanger aluminum. Excellent lubricity.	0.91	Solubility	pH:	Brown
DH PRESS RP-40C	Drawing oil for aluminum secondary battery can. Excellent detergency.	0.89	100	1a	Lemon yellow
DH DRAW 900C	Drawing oil for circular battery can. Excellent detergency.	1.00	65	1a	Lemon yellow
DH PRESS EV-903	Drawing oil for secondary automobile battery can, Excellent detergency.	0.90	100	1a	Lemon yellow
DH DRAW 206H	Deep drawing for various steels. Excellent resistance about extreme-pressure. Excellent extreme-pressure resistance and lubricity. It is able to select oils, which are according to the difficulty of works. It has oil strain prevention and rust prevention effect.	1.03	200	4c	Dark brown
DH DRAW 206A		1.00	80	4c	Lemon yellow
DH DRAW 206L		1.02	25	4c	Lemon yellow
DH PRESS 500		0.93	40	4b	Dark brown
DH PRESS 50EX		0.89	45	1b	Dark brown

○ Pipe Manufacturing Oil

Product Name	Features and Applications	Specific Gravity (15/4°C)	PH (5%)	TYPE (Aqueous solution)	Recommended Concentration (%)
DAIROLL SF-22K	Forming oil for various pipes. Excellent emulsification and solubility.	0.91	9.5	Ivory white emulsion	3 ~ 10
DH ROLL 20	Forming oil for steel pipes. Excellent corrosion and rust prevention ability.	0.91	9.5	Ivory white emulsion	3 ~ 10

The above figures are mid-values.



○ Universal anti-wear hydraulic oil

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
DH HYDRO LUBE 32	<ul style="list-style-type: none"> • Excellent oxidation stability • Excellent rust resistance and wear resistance • Excellent lubricity • Excellent gas prevention, bubble prevention and water separation • Excellent filtration 	0.86	32.0	110	216	L1.0	-37.5
DH HYDRO LUBE 46		0.87	46.0	108	224	L1.0	-35.0
DH HYDRO LUBE 68		0.87	68.0	107	228	L1.5	-35.0
DH HYDRO LUBE 100		0.88	100.0	105	232	L1.5	-32.5
DH HYDRO LUBE 150		0.89	150.0	103	234	L1.5	-30.0

○ High-quality anti-wear hydraulic oil

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
DH SUPER HYDRO LUBE 32	<ul style="list-style-type: none"> • Excellent oxidation stability and thermal stability prolongs the life of product and enables the product for a long-term • Excellent rust and corrosion prevention • Excellent lubricity and demulsibility • Excellent gas prevention, bubble prevention and water separation • Excellent filtration • Thanks to special wear prevention agent, it protects equipment and inhibits wear under high load. 	0.87	32.0	110	216	L1.0	-37.5
DH SUPER HYDRO LUBE 46		0.88	46.0	108	224	L1.0	-35.0
DH SUPER HYDRO LUBE 68		0.88	68.0	107	228	L1.5	-32.5
DH SUPER HYDRO LUBE 100		0.89	100.0	105	230	L1.5	-32.5
DH SUPER HYDRO LUBE 150		0.89	150.0	103	232	L1.5	-30.0

○ Industrial Gear Oil

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
DH GEAR OIL EP-68	<ul style="list-style-type: none"> • Strong oil film • Excellent water separating ability • Excellent rust and corrosion prevention for all types of metals • Excellent oxidation stability and thermal stability • High viscosity index and excellent bubble preventing ability 	0.88	69.0	108	220	L4.5	-32.5
DH GEAR OIL EP-100		0.89	99.9	107	222	L4.5	-32.5
DH GEAR OIL EP-150		0.89	151.0	104	226	L5.0	-30.0
DH GEAR OIL EP-220		0.89	222.2	104	230	L5.0	-27.5
DH GEAR OIL EP-320		0.90	320.1	102	240	L5.0	-22.5
DH GEAR OIL EP-460		0.90	458.7	103	250	L5.5	-22.5
DH GEAR OIL EP-680		0.91	679.0	101	312	L5.5	-20.0



○ Machine Oil

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
MACHINE OIL 10	<ul style="list-style-type: none"> • Maintains appropriate viscosity at the time of low-temperature startup and during high temperature operation • Smooth operation • Excellent oxidation stability and thermal stability • Preventing the wear of the lubricated areas by forming a strong lubricated film • Prolonged mechanical life • Transparent color gives excellent visibility • Low tendency of bubble generation and inhibits the oil oxidation due to temperature rise. • oxidation due to temperature rise. re rise • Thanks to its excellent detergency and dispersion ability, dissolve the oxidation products and impurities causing stains and prolongs the life of facilities. 	0.87	10.1	108	160	L0.5	-17.5
MACHINE OIL 22		0.86	22.4	105	206	L0.5	-17.5
MACHINE OIL 32		0.86	32.3	105	200	L1.0	-15.0
MACHINE OIL 46		0.87	46.2	103	206	L1.0	-15.0
MACHINE OIL 68		0.87	68.1	103	216	L1.5	-12.5
MACHINE OIL 100		0.88	99.8	102	224	L1.5	-12.5
MACHINE OIL 150		0.89	149.9	100	232	L2.0	-12.5
MACHINE OIL 220		0.89	221.0	100	236	L2.0	-10.0
MACHINE OIL 320		0.90	320.0	100	274	L2.5	-10.0
MACHINE OIL 460		0.90	462.0	100	320	L3.0	-7.5

○ Machine Oil (Slide-way Oil)

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
DH HEAVY HYDRO LUBE 32	<ul style="list-style-type: none"> • Excellent oxidation stability • Excellent rust prevention and wear prevention • Excellent bubble preventing ability • Excellent demulsibility 	0.86	31.9	108	220	L0.5	-30.0
DH HEAVY HYDRO LUBE 46		0.86	46.1	105	232	L0.5	-27.5
DH HEAVY HYDRO LUBE 68		0.87	68.3	105	240	L0.5	-22.5

○ Slide-way Oil

Product Name	Features	Specific Gravity (15/4°C)	Kinematic Viscosity (40°C, mm ² /s)	Viscosity Index (VI)	Flash Point (°C)	Color (ASTM)	Pour Point (°C)
DH WAY LUBRICANT-32	<ul style="list-style-type: none"> • Excellent Stick Slip resistance and adhesiveness • Excellent friction and wear resistance properties • Excellent rust and corrosion prevention for equipment • Uniform lubrication • Excellent load transfer ability and oil film strength • Excellent oxidation stability and thermal stability 	0.88	32.1	108	216	L1.0	-22.5
DH WAY LUBRICANT-68		0.88	68.3	105	228	L1.5	-20.0

○ Cleaning and Intermediary Corrosion Control

Product Name	Features and Applications	Appearance (Crude Liquid)	pH (3%)	How to use		
				Concentration(%)	Temperature (°C)	How to clean
DAICLEANER R-208A-50	Suitable for cleaning automotive parts (steel and aluminium) Low foaming - high / low pressure washing machine application	Colorless and Transparent	10.2	3~10	40~60	SPRAY
DAICLEANER R-630-DPX	Suitable for cleaning non-ferrous metal, cast iron and mechanical parts. Excellent cleaning ability and rust preventive ability.	Lemon yellow and Transparent	9.6	3~8	40~60	SPRAY
DAICLEANER R-313DC	Suitable for cleaning various types of parts. Low-foaming and excellent cleaning and rust preventive ability	Colorless and Transparent	9.5	3~10	40~60	SPRAY
DH CLEANER R-208A-60N	Suitable for cleaning various types of parts. Excellent cleaning and rust preventive ability. Leaves less residues after cleaning	Colorless and Transparent	9.6	3~10	40~60	SPRAY
DH CLEANER R-208A-60H	Suitable for cleaning various types of parts. Improved the rust preventive ability of DH CLEANER R-208A-60N .	Colorless and Transparent	10.2	3~10	40~60	SPRAY
DH CLEANER R-208A-70H	Suitable for cleaning various types of parts. Excellent cleaning and rust preventive ability, Excellent ability of separating different oils.	Lemon yellow and Transparent	9.7	3~10	40~60	SPRAY
DAICLEANER S-305	CD-proof metal cleaner (for final cleaning of cold-rolled steel), CD-proof agent for annealing of cold-rolled steel.	Dark brown and Transparent	9.5	0.5	Room Temp. ~40	SPRAY
DAICLEANER R-200	Universal alkaline metal cleaner. Free from inorganic salts and excellent cleaning and rust prevention ability	Lemon yellow and Transparent	9.3	3~10	40~70	SPRAY
DAICLEANER R-209	Suitable for general steel and cast iron, Low-foaming and rust prevention between processes	Colorless and Transparent	9.6	3~10	40~70	SPRAY
DAICLEANER R-252	Suitable for the cleaning and temporary rust prevention of machine parts, cast iron and al products. Used for testing the water pressure for steel pipes	Lemon yellow and Transparent	9.1	3~10	10~50	SPRAY Dipping
DH CLEAN E	EMULSION type. Suitable for cleaning and rust prevention. Can be applied to Tension leveler process.	Dark brown and Transparent	9.3	3~5	Room Temp. ~40	SPRAY
DH CLEAN ALG	Al cleaner. Excellent ability of cleaning and preventing Al discoloration and corrosion.	Lemon yellow and Transparent	8.5	3~10	40~60	SPRAY
DH CLEAN 1000FAL	Suitable for cleaning of steel and non-ferrous metals(Al and copper). Excellent ability of cleaning and preventing Al discoloration and corrosion.	Light yellow and Transparent	9.2	3~10	40~60	SPRAY
DH CLEAN 175AL(H)	Suitable for cleaning non-ferrous metal. Excellent cleaning ability.	Cream color and Transparent	12.0	3~10	45~60	Deeping, Ultrasonic
CHEMILITE CP-40JT CONC	Suitable for cleaning various types of gears before EBW. Suitable for the cleaning and temporary rust prevention treatment of various types of machine parts.	Lemon yellow	9.5	0.2~0.7	60~80	SPRAY
CHEMILITE M-1 CONC	Suitable for cleaning various types of gears before EBW. Excellent ability of rust prevention, cleaning and removing bubbles and leaves less residue. Thus it reduces defective welding and prolongs the life of electrodes.	Lemon yellow	8.6	0.2~0.7	60~70	SPRAY
CHEMILITE LE-2000 CONC	Exclusively Suitable for cleaning various types of gears before EBW. Excellent ability of rust prevention (It leaves little residue. Thus it reduces defective welding)	Lemon yellow and Transparent	8.4	0.2~0.7	60~80	SPRAY Ultrasonic

○ Neutral Metal cleaner

Product Name	Features and Application	Appearance (Crude Liquid)	pH (3%)	How to use		
				Concentration(%)	Temperature(°C)	How to clean
DAICLEANER R - 530	Water-soluble metal cleaner with low pollutant emission and lower harms to human bodies, Excellent cleaning ability (alternative to organic solvent)	Yellow, Transparent	7.6	3 ~ 10	Room Temp. ~60	Dipping Ultrasonic cleaning
DAICLEANER R - 530L	Water-soluble metal cleaner with low pollutant emission and lower harms to human bodies, Excellent cleaning ability demonstrate exceptional cleaning power.	Yellow, Transparent	7.6	3 ~ 10	Room Temp. ~60	Dipping Ultrasonic cleaning

○ Chloride-based Metal cleaner

Product Name	Features and Application	Appearance (Crude Liquid)	Concentration(%)	How to use		
				Temperature(°C)	How to clean	
DH SUPER CLEAN 60	There is no flash point. Easy to handle, Can be applicable to steel and non-ferrous metals, Excellent cleaning ability and leaves no residue after cleaning. Safe and long life.	Colorless, Transparent	42	Conc.	Room Temp. ~50	Vapor Ultrasonic
DH SUPER CLEAN 70		Colorless, Transparent	87	Conc.	Room Temp. ~90	Vapor Ultrasonic
DH SUPER CLEAN 90	Can be applicable to steel and non-ferrous metals (no flash point, no ignition point), Alternative to CFC based products (excellent evaporation)	Colorless, Transparent	32	Conc.	Room Temp. ~40	Vapor Ultrasonic

○ Hydrocarbon-based Metal cleaner

Product Name	Features and Application	Appearance (Crude Liquid)	Concentration(%)	How to use				
				Temperature(°C)	How to clean			
DH CLEAN 700	Less harmful to human body, Odorless, Excellent drying ability after cleaning, Applicable to general non-ferrous metals, Used for vacuum cleaner	Colorless and Transparent	80	Conc.	Room emperature	Dipping spray Ultrasonic		
DH CLEAN 800G		Colorless and Transparent	42	Conc.	Room emperature			
DH CLEAN 800H		Colorless and Transparent	54	Conc.	Room emperature			
DH CLEAN 60SA		Colorless and Transparent	58	Conc.	Room emperature			
DH CLEAN 60TK		Colorless and Transparent	64	Conc.	Room emperature			
DH CLEAN 60X		Colorless and Transparent	48	Conc.	Room emperature			
OLEX CLEAN 77		Colorless and Transparent	87	Conc.	Room emperature			
DH CLEAN 50		Thanks to excellent drying speed, it leaves no mark after cleaning. With excellent cleaning ability, it is used to clean various types of metal.	Colorless and Transparent	Below 10	Conc.		Caution for flammables	Dipping
OLEX CLEAN 630		Thanks to its excellent cleaning ability, it is used to clean various types of metal.	Colorless and Transparent	34	Conc.		Room emperature	Dipping
DH CLEAN 600		Colorless and Transparent	40	Conc.	Room emperature		Dipping	
DH CLEAN 600H	Thanks to its excellent cleaning ability, it is used to clean various types of metal.	Colorless and Transparent	51	Conc.	Room emperature	Dipping spray		
OLEX CLEAN 66W	Used for automotive hose and pipes	Colorless and Transparent	52	Conc.	Room emperature	Dipping spray		
DH CLEAN 210	Metal cleaner for water replacement, Used between processes(for cleaning after water-soluble processing)	Lemon yellow and Transparent	94	Conc.	Room emperature ~60	Dipping		

The above figures are mid-values.

Special Lubricants



Lubricants for cold forging-One component (Aqualub)

Product Name	Features	Applications
CFW-3	Excellent film drying ability and lubricity	Cold forging of gears and shafts
CFW-39	Excellent film drying ability and lubricity	Cold forging of gears, shafts and CVJ
CFW-87J	High-lubricity, high-anticorrosion ability, less coating weight	Cold forging of gears, shafts and CVJ
A-110	High-lubricity	Aluminum alloys, general machining, impact presses
A-1245	High-lubricity	Aluminum alloys, general machining, impact presses

Lubricant for aluminum cold rolling

Product Name	Applications and Features	Specific Gravity (15/4°C)	Kinematic viscosity (40°C;mm ² /s)	Flashing Point(°C)	Appearance
ROLL 700	Lubricant for cold rolling. Used with additives	0.81	1.7	77	Colorless
ACR 700	Additives for rolling, Excellent lubricity and anti-rust ability	0.85	7.7	130	Colorless

Lubricant for warm/hot forging

Product Name	Type	Features	Applications
HOT AQUA LUBE # 300TK	Soluble	Warm/hot forging, hot former— High-temperature adhesion, high lubricity, cooling ability, excellent oil-water separation	Constant velocity joints and various types of shafts
HOT AQUA LUBE # 300HVS	Soluble	Oil well tubes Up SET, suitable for non-drying processing, low-temperature adhesion, excellent lubricity	Gears and constant velocity joints
HOT AQUA LUBE # 270	Soluble	Warm/hot forging, High-temperature adhesion, high lubricity, cooling ability, excellent oil-water separation	Gears and engine valves
HOT AQUA LUBE # S-30	Soluble	Hot forging for engine vacuum tubes, excellent lubricity, Alkali metal-free	Engine valves, etc.

Lubricating-parting agent for hot forging which does not contain graphite for the improvement of working environment

Aluminum Parting Agent

Product Name	Type	Applications and Features	Properties
OLEX AQUA LUBE 7710	Soluble	General die-casting, high-temperature adhesion, drying ability, lubricity, excellent moldability	Milk-while emulsion
HOT AQUA LUBE AL-300	Soluble	General die-casting, high-temperature adhesion, drying ability, lubricity, excellent moldability	Non-volatile content(%) 30
HOT LUBE P-850	Oil-based	Spraying for PLUNGER Chip. Stability, excellent lubricity	Kinematic Viscosity (40°C,mm ² /s) 900
LAUREL AL-325PE	Oil-based	Aluminum slab strand casting, high-temperature lubricity, anti-seizure property	—

The above figures are mid-values.

Company



- Mar 2015 ... Samsung Electronics, Korea's first export processing oil factory in Vietnam smartphones
- Oct 2014 ... Received KS Certification Award on 2014 World Standards Day
- Nov 2012 ... Signed Hazardous Chemical Guidelines Agreement (Metal Worker's Union)
- Oct 2012 ... Developed non-ferrous metal working fluids
- Feb 2010 ... Developed Can Drawing Oil for the secondary batteries
- 2012 ... Developed non-ferrous metal working fluids and Signed Hazardous Chemical Guidelines Agreement
... (Metal Worker's Union)
... Developed non-ferrous metal working fluids
... Developed Can Drawing Oil for the secondary batteries
- 2010 ... Renamed the company from Dongho Company to DH Chemical Co.,Ltd
- Jul 2010 ... Exported punching oil (10KDM/year)
- Dec 2007 ... Launched Olex brand and registered trade mark
- Jan 2007 ... Developed grinding oil for bearings
- Sep 2005 ... ISO 9001 certification, ISO 14001 certification
- Oct 2004 ... Developed punching oil for nano- plasma
- Sep 2003 ... Extended and renovated factory buildings and R&D center
- Oct 2004 ... Established Shanghai, China factory (SHANGHAI TECTYL OIL & CHEMICALS CO.,LTD)
- Sep 2003 ... Exported punching oil for air conditioner heat exchangers
- Feb 2001 ... Acquired an approval of quality display of industrial lubricants KS
... (KSM2126, KSM2127, KSM2129) (hydraulic oil, machine oil, gear oil)
- Aug 2000 ... Acquired an approval for the establishment of R & D Institute of Technology
- Dec 2000 ... Acquired LG's approval on the punching oil for air conditioner heat exchangers Develop ERP and
- Nov 1999 ... introduced IT for business process
- Non 1999 ... Extended production facilities (Blending Tank, etc.)
- May 1998 ... Designated as Promising SME
- Jun 1995 ... Extended production facilities (Blending Tank, etc.)

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