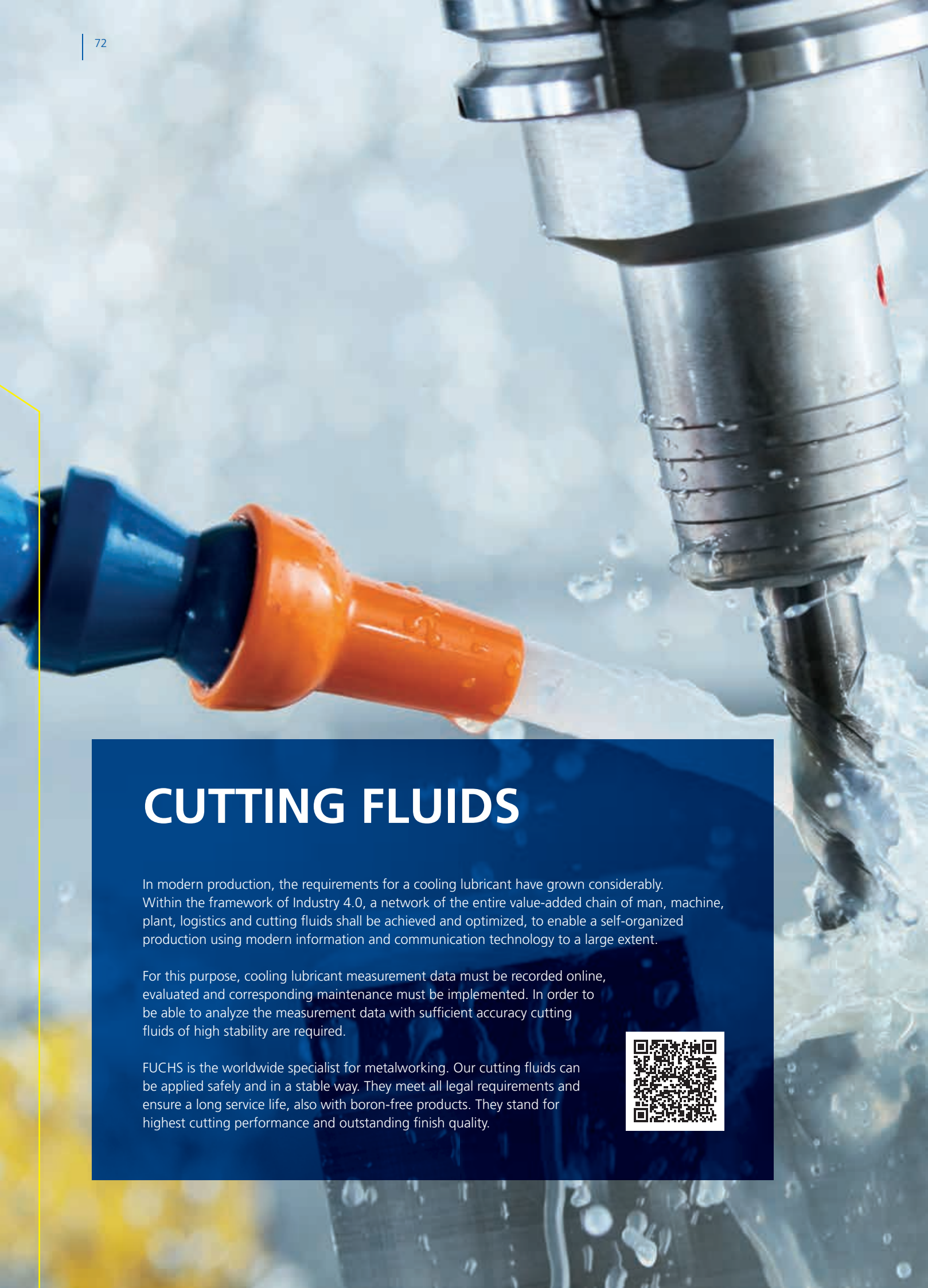

CUTTING FLUIDS

In modern production, the requirements for a cooling lubricant have grown considerably. Within the framework of Industry 4.0, a network of the entire value-added chain of man, machine, plant, logistics and cutting fluids shall be achieved and optimized, to enable a self-organized production using modern information and communication technology to a large extent.

For this purpose, cooling lubricant measurement data must be recorded online, evaluated and corresponding maintenance must be implemented. In order to be able to analyze the measurement data with sufficient accuracy cutting fluids of high stability are required.

FUCHS is the worldwide specialist for metalworking. Our cutting fluids can be applied safely and in a stable way. They meet all legal requirements and ensure a long service life, also with boron-free products. They stand for highest cutting performance and outstanding finish quality.

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Cutting Fluids – Water-miscible

Product name	Convent. Emulsion	Semi synth. Emulsion	Solution Fully synthetic	Density at 15 °C	pH Value 5%	Mixing water Hardness	Boron-free	Material Recommendations	Main application area
Core Program									
ECOCOOL AFC 1515 BW	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel alloyed steel, Al*	Multi-functional metalworking fluid, especially for difficult operations such as reaming and threading. DMG-Approval, GROB-Approval
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel alloyed steel, Al*	Metalworking fluid for general machining, in particular for special cast alloys and high-alloy steels; good cooling, wetting and flushing properties; greater economy due to low drag-out losses. GROB-Approval
ECOCOOL AFC 1515	•	–	–	0.95	9.4	S, M, H	•	Steel alloyed steel, Al*	For roughing and precision machining, as well as the grinding of steel and aluminium materials; excellent lubricity
ECOCOOL R - AFC 1515 L	•	–	–	0.99	9.6	M, H	–	Steel, alloyed steel, cast iron, Al*	Metalworking fluid for general and precision maching (such as reaming); low foaming; low misting and good abrasion sedimentation properties
ECOCOOL 68 CF 3-1	–	• (ME)	–	1.02	9.4	M, H	–	Steel alloyed steel, cast iron	Metalworking fluid for general machining and grinding; outstanding flushing; greater economy due to low drag-out losses
ECOCOOL R - GRINDSTAR	–	• (ME)	–	1.01	9.7	S, M	–	Steel, alloyed steel, cast iron, Al*	Metaworking fluid for general machining and grinding; very good flushing and high pH buffering properties; for soft water from 2° dH; greater economy due to low drag-out losses

ECOCOOL

Product name	Conv. Emulsion	Semi synth. Emulsion	Solution Fully synthetic	Density at 15 °C	pH Value 5%	Mixing water Hardness	Boron-free	Material Recommendations	Main application area
Core Program									
ECOCOOL R - VHCM	–	• (ME)	–	1.01	9.5	M, H	–	Steel, cast iron	Metalworking fluid for general machining operations; greater economy due to low drag-out losses. DMG-Approval
ECOCOOL S-AERO G	–	–	• (EP)	1.06	8.65	S, M	•	Steel, Al*	Fully-synthetic metalworking fluid for the most difficult machining and grinding operations on steel and aluminium alloys; very low foaming; suitable for high pressures and soft water; greater economy due to low drag-out losses
ECOCOOL S-CP	–	–	• (EP)	1.06	9.4	S, M	•	Steel, cast iron, Al*	Fully-synthetic metalworking fluid for the grinding and machining of cast iron and steel; extremely low foaming; good wetting and flushing properties; does not leave sticky residues
ECOCOOL TN 2530	• (EP)	–	–	0.98	9.4	M, H	•	Steel, alloyed steel, Titan, Inconel, Al*	Metalworking fluid with EP additives; universally applicable for aluminium materials, titanium and stainless steels; stable at high pressures and low foaming
ECOCOOL S-CO 5 BF	–	–	•	1.10	8.8	S, M	•	Tungsten carbides, nonferros metals	Fully-synthetic metalworking fluid for the machining and grinding of tungsten carbides; reduces cobalt leaching; low drag-out losses
ECOCOOL VHCM	–	• (ME EP)	–	0.99	9.4	S, M	•	Steel, cast iron	Metalworking fluid for general machining and grinding operations; the boron-free equivalent to ECOCOOL R -VHCM; greater economy due to low drag-out losses
ECOCOOL ALUSTAR BF	•	–	–	0.95	7.9	M	•	Steel, alloyed steel, Al*, zinc- and lead-containing nonferrous materials	High-quality, universal metalworking fluid, especially for machining of zinc- and lead-containing nonferrous materials and critical alluminium alloys; pH neutral; outstanding lubricity; good wetting and flushing properties
ECOCOOL AL-PLUS B	•	–	–	0.93	9.1	S, M, H	•	Alloyed steel, nonferrous materials, Al*	High-quality, universal metalworking fluid, especially for the machining of zinc- and lead-free nonferrous metals and staining-prone aluminium; not suitable for gunmetal; outstanding lubricity

ME = Micro-emulsion; EP = EP additivation; ME EP = Micro-emulsion with EP additives; S = Water hardness: Soft; M = Water hardness: Medium; H = Water hardness: Hard;
* = Check compatibility with critical alloys; • = Yes; – = No; (•) – conditional

Cutting Fluids – Water-miscible

Product name	Convent. Emulsion	Semi synth. Emulsion	Solution Fully synthetic	Density at 15 °C	pH Value 5%	Mixing water Hardness	Boron-free	Material Recommendations	Main application area
Machining Aluminium									
ECOCOOL AL-PLUS B	•	–	–	0.93	9.1	S, M, H	•	Alloyed steel, nonferrous materials, Al*	High-quality, universal metalworking fluid, especially for the machining of zinc- and lead-free nonferrous metals and staining-prone aluminium; not suitable for gunmetal; outstanding lubricity
ECOCOOL AFC 1515 BW	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel, alloyed steel, Al*	Multi-functional metalworking fluid, especially for difficult operations such as reaming and threading. DMG-Approval, GROB-Approval
ECOCOOL ALUSTAR BF	•	–	–	0.95	7.9	M	•	Steel, alloyed steel, Al*, zinc- and lead-containing nonferrous materials	High-quality, universal metalworking fluid, especially for machining of zinc- and lead-containing nonferrous materials and critical aluminium alloys; pH neutral; outstanding lubricity; good wetting and flushing properties
ECOCOOL AFC 1515	•	–	–	0.95	9.4	S, M, H	•	Steel alloyed steel, Al*	For roughing and precision machining, as well as the grinding of steel and aluminium materials; excellent lubricity; always maintain minimum concentration
ECOCOOL R - AFC 1515 L	•	–	–	0.99	9.6	M, H	–	Steel, alloyed steel, cast iron, Al*	Metalworking fluid for general and precision machining (for example, reaming); low foaming; low misting and good abrasion sedimentation properties
ECOCOOL S-AERO G	–	–	• (EP)	1.06	8.65	S, M	•	Steel, Al*	Fully-synthetic metalworking fluid for the most demanding machining and grinding operations on steel and aluminium alloys; extremely low foaming; suitable for soft water and high pressures; better economy due to low drag-out losses

ECOCOOL

Product name	Conv. Emulsion	Semi synth. Emulsion	Solution Fully synthetic	Density at 15 °C	pH Value 5%	Mixing water Hardness	Boron-free	Material Recommendations	Main application area
Machining Cast Iron and Low-Alloy Steels									
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel, alloyed steel, Al*	Metalworking fluid for general machining, especially for special cast iron alloys and high-alloy steels; excellent cooling, wetting and flushing; low drag-out losses. GROB-Approval
ECOCOOL 68 CF 3-1	–	• (ME)	–	1.02	9.4	M, H	–	Steel alloyed steel, cast iron	Metalworking fluid for general machining and grinding; outstanding flushing; greater economy due to low drag-out losses
ECOCOOL R - GRINDSTAR	–	• (ME)	–	1.01	9.7	S, M	–	Cast iron, steel, Al*	Metalworking fluid for general machining and grinding operations; very good flushing and high pH buffering capacity; for soft water from 2 °dH; low drag-out losses
ECOCOOL R - VHCM	–	• (ME)	–	1.01	9.5	M, H	–	Steel, cast iron	Metalworking fluid for general machining operations; low drag-out losses. DMG-Approval
ECOCOOL VHCM	–	• (ME EP)	–	0.99	9.4	S, M	•	Steel, cast iron	Metalworking fluid for general machining and grinding operations; boron-free equivalent to ECOCOOL R -VHCM; low drag-out losses
Machining High-Alloy Steels and Hot Strength Materials									
ECOCOOL R - AFC 1515 L	•	–	–	0.99	9.6	M, H	–	Steel, alloyed steel, cast iron, Al*	Metalworking fluid for general and precision machining (for example, reaming); low foaming; low misting and good abrasion sedimentation properties
ECOCOOL TN 2530	• (EP)	–	–	0.98	9.4	M, H	•	Steel, alloyed steel, Titan, Inconel, Al*	Metalworking fluid with EP additives; universally applicable for aluminium materials, titanium and stainless steels; high-pressure stable and low foaming.
ECOCOOL AFC 1515	•	–	–	0.95	9.4	S, M, H	•	Steel alloyed steel, Al*	For roughing and precision machining, as well as the grinding of steel and aluminium materials; excellent lubricity
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel alloyed steel, Al*	Metalworking fluid for general machining, in particular for special cast alloys and high-alloy steels; good cooling, wetting and flushing properties; greater economy due to low drag-out losses. GROB-Approval

ME = Micro-emulsion; EP = EP additivation; ME EP = Micro-emulsion with EP additives; S = Water hardness: Soft; M = Water hardness: Medium; H = Water hardness: Hard;
* = Check compatibility with critical alloys; • = Yes; – = No; (•) – conditional

Cutting Fluids – Water-miscible

Product name	Convent. Emulsion	Semi synth. Emulsion	Solution Fully synthetic	Density at 15 °C	pH Value 5%	Mixing water Hardness	Boron-free	Material Recommendations	Main Application area
Machining Nonferrous Metals (Copper, Brass, Bronze)									
ECOCOOL AL-PLUS B	•	–	–	0.93	9.1	S, M, H	•	Alloyed steel, nonferrous metals, Al*	High-quality, universally applicable metalworking fluid, especially for the machining of zinc- and lead-free nonferrous metals and staining-prone aluminium; not suitable for gunmetal; excellent lubricity; good wetting and flushing
ECOCOOL ALUSTAR BF	•	–	–	0.95	7.9	M	•	Steel, alloyed steel, Al*, zinc- and lead-containing nonferrous materials	High-quality, universally applicable metalworking fluid, especially for the machining of zinc- and lead-containing nonferrous materials; pH neutral; outstanding lubricity; good wetting and flushing
Machining Magnesium									
ECOCOOL 2516 MG-DC	•	–	–	0.97	9.3	H	•	Al*, Mg	High-quality, universally applicable metalworking fluid; specially developed for the machining of magnesium; mixing water > 30 °dH; stable up to 200 °dH without deposits forming
Special Products									
ECOCOOL GS 2000	–	–	•	1.06	8-10	–	•	Cast iron, steel	Thread cutting medium for water pipes; approved by the German DVWG; dyed red
ECOCOOL S CO 5 BF	–	–	•	1.10	8.8	S, M	•	Nonferrous metals	Fully-synthetic metalworking fluid for the machining and grinding of tungsten carbides and nonferrous metals; reduces cobalt leaching and soap formation; low foaming; low drag-out losses
ECOCOOL S-240	–	–	•	1.00	9.0	S, M	•	Composites	Fully-synthetic metalworking fluid for machining CFRP/GFRP, good wetting and flushing properties, extreme less foaming, leaves no sticky residues

Service Additives for Cutting Fluids

ECOCOOL

Product name	Description/ Features	Application conc. (of the final dilution) [%]	Increased corrosion protection	Increase pH value	Main application area
Top-up Concentrate for Water-miscible Metalworking Fluids					
ECOCOOL AKTIV 78	EP top-up concentrate	0.5% addition to max. 2	–	–	Increases EP performance. Not for machining nonferrous metals and fully-synthetic products
ECOCOOL ALKALISATOR G	Primary alkano-lamine	0.1 - 0.5 steps	(•)	•	Increases pH value
ECOCOOL AKTIV CU	Copper deactivator	0.2 - 3	•	–	Combats the staining and greenish discolouration of nonferrous metals
ECOCOOL AKTIV ALU	Against alumini-um staining	0.1 - 0.15	•	–	Avoids aluminium staining
NETZMITTEL 12	Wetting agent	0.05 - 0.2	–	–	Improves wetting properties
ECOCOOL AKTIV CPO	Corrosion protection	0.1 - 0.3	•	–	Increases the corrosion protection offered by emulsions and synthetic metalworking fluids
Defoamers, Synergetically Matched to ECOCOOL Water-miscible Metalworking Fluids					
ANTIFOAM 46	Si-organic compound	0.01 - 0.05 (of the concentrate)	–	–	Standard defoamer for emulsions and syn-thetic solutions
ANTIFOAM 46 W	Si-organic compound	0.001 - 0.01 (of the emulsion volume)	–	–	Equivalent to ANTIFOAM 46 but with solubili-zers, therefore mixes well
ANTIFOAM 48	Si-organic compound	0.01 - 0.05 (of the concentrate)	–	–	For use with emulsions and synthetic solutions
ANTIFOAM 51	Si-organic compound	0.01 - 0.05 (of the concentrate)	–	–	For use with emulsions and synthetic solutions
ANTIFOAM 51 G	Si-organic compound	0.001 - 0.01 (of the emulsion volume)	–	–	Equivalent to ANTIFOAM 51 but with solubili-zers, therefore mixes well
ANTIFOAM LC 30 W	Si-organic compound	0.001 - 0.01 (of the emulsion volume)	–	–	Mixture of various defoamers; very broad range of applications
ANTIFOAM WS 1	Ca hardening compounds	0.01 (of the emulsion volume)	–	–	Agents to harden water; as a rule, 0.01% increases water hardness by about 1 °dH, to a max. of 30 °dH

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Service Additives for Cutting Fluids

Product name	Application concentration (of the final dilution) [%]	Formaldehyde-free	Fungicide	Bactericide	pH value effect	Main application area
Bactericides and Fungicides for the Maintenance of ECOCOOL Water-miscible Metalworking Fluids						
ACTICIDE OX	0.1 - 0.15	–	–	•	•	Formaldehyde-release agent
TROY SHIELD PA 10	0.1 - 0.2	•	•	–	–	Fungicide for emulsions
ACTICIDE WB 200	0.02 - 0.05 max. 0.1	•	•	–	–	Fungicide for emulsions and synthetic solutions
ACTICIDE MBS	0.1 - 0.2	•	•	•	–	Combination of fungicide and bactericide for emulsions and synthetic solutions

ME = Micro-emulsion; EP = EP additivation; ME EP = Micro-emulsion with EP additives; S = Water hardness: Soft; M = Water hardness: Medium; H = Water hardness: Hard;
* = Check compatibility with critical alloys; • = Yes; – = No; (•) – conditional

Neat Cutting Fluids

ECOCUT

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
ECOCUT 3000 Series								
ECOCUT 3010	11	0.84	160	•	–	•	•	Multipurpose cutting oil; low misting; copper inactive; for general machining; universally applicable for cutting and grinding; Viscosities 32 and 46 also suitable as hydraulic oils
ECOCUT 3022	22	0.86	180	•	–	•	•	
ECOCUT 3032	32	0.87	210	•	–	•	•	
ECOCUT 3046	45	0.88	220	•	–	•	•	
ECOCUT HFN Series								
ECOCUT HFN 5 LE-HC	4	0.83	136	•	–	•	•	Multipurpose cutting oil; low evaporation and low misting; copper-inactive; for grinding and cutting operations with geometrically-defined cutting-tools. The low-viscosity versions (5 and 10) are also suitable for honing; the higher viscosities can be used as multi-functional oils (HLP hydraulic oils)
ECOCUT HFN 10 LE-HC	10	0.84	170	•	–	•	•	
ECOCUT HFN 16 LE	15	0.86	200	•	–	•	•	
ECOCUT HFN 22 LE	22	0.85	212	•	–	•	•	
ECOCUT HFN 32 LE	30	0.85	200	•	–	•	•	

Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
ECOCUT FT Series Containing GTL-Base Oil								
ECOCUT FT 10 HFN	10	0.82	191	•	–	•	•	Special maching oils containing GTL base oils (Fischer- Tropsch process) for grinding and for chip-forming machining operations. Particularly high flashpoint and low evaporation
ECOCUT FT 10 HES	10	0.83	196	•	•	(•)	(•)	
ECOCUT FT 13 HFN	13	0.83	194	•	–	•	•	
ECOCUT 500 Series								
ECOCUT 515	15	0.90	158	•	•	–	–	Cutting oils with high EP additive content for machining operations and especially thread cutting on high-alloy steels (stainless steels). Lower viscosities highly suitable for deep hole drilling
ECOCUT 522	24	0.90	204	•	•	–	–	
ECOCUT 532 LE	30	0.88	200	•	•	–	–	
ECOCUT 600 Series								
ECOCUT 610 A	10	0.85	160	•	•	–	–	Neat cutting oils universally applicable for the most machining operations with definde edge in alloyed steels. Special additives with geometrically-defined cutting edges reduce the friction and increase the tool life. Low misting, chlorine- and zinc-free.
ECOCUT 615 LE	16	0.88	210	•	•	–	–	
ECOCUT 615 A	17	0.87	200	•	•	–	–	
ECOCUT 628 LE	26	0.86	210	•	•	–	–	
ECOCUT 700 Series								
ECOCUT 710 LE	10	0.87	158	•	•	–	–	High performance oils with high EP additive content and universally applicable for operations on high-alloy steels (Cr-Ni steels) in gear machining such as gear hobbing, broaching and deep hole drilling. Low misting, chlorine- and zinc-free
ECOCUT 715 LE	17	0.89	200	•	•	–	–	
ECOCUT 717 KE	18	0.89	196	•	•	–	(•)	
ECOCUT 720 LE	21	0.89	210	•	•	–	–	
ECOCUT 732 LE	32	0.88	190	•	•	–	–	
ECOCUT 800 Series								
ECOCUT 832	29	0.92	180	•	•	–	–	Broaching and special oils for very difficult machining processes and operations on high-alloy (also stainless) steels; particularly for the vertical and horizontal broaching of gear teeth and keyways. Low-misting; zinc-free; high EP additive content
ECOCUT 8532	32	0.94	210	•	•	–	–	
ECOCUT 8535 S	36	0.97	200	•	•	–	–	

(•) – Check compatibility with critical alloys

ECOCUT, PLANTO

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
PLANTOCUT Series – Environmentally Friendly Metalworking Fluids								
PLANTOCUT 10 SR	10	0.86	206	•	•	•	•	Rapidly biodegradable, ester-based cutting oil. Particularly suitable for operations with geometrically-defined cutting edges such as turning, milling, drilling, etc. Low evaporation and low misting; H304-free
PLANTOCUT 22 SR	22	0.90	215	•	•	•	•	
PLANTOCUT 40 SR	40	0.92	216	•	•	•	•	
PLANTOCUT 18 S-CS	38	0.93	200	•	•	–	–	

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
Minimum Quantity Lubrication (MQL)								
PLANTO MIKRO 40 SR	40	0.92	216	•	•	•	•	Rapidly biodegradable, ester-based, high EP level minimum quantity lubrication oil, universally applicable for all materials including titanium and titanium alloys. Low evaporation and low misting; can be used with diverse application systems
PLANTO MIKRO UNI	15	0.88	200	•	•	•	•	
ECOCUT MIKRO PLUS 20	27	0.84	188	•	•	•	•	Minimum quantity lubrication oils based on fatty alcohols; evaporate with almost no residues. Suitable for all application systems
ECOCUT MIKRO PLUS 82	20	0.84	172	•	•	•	•	

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Cutting alloy	HSS Steel	Main application area
Specific Application – Tool grinding						
ECOCUT FT 7 WSE	7.7	0.83	166	•	(•)	Grinding oil based on GTL oil, aplicable for the grinding and sharpening of HSS and tungsten carbide tools; low aromatic content; combats cobalt solubility; suitable for micro-filtering systems
ECOCUT HS	5.5	0.80	160	•	(•)	PAO-based machining fluid, universally applicable for the grinding and sharpening of HSS and tungsten carbide tools; low aromatic content; combats cobalt solubility, suitable for micro-filtering systems

Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
Specific Application – Gear Machining								
ECOCUT 628 LE	26	0.86	210	•	•	–	–	Universally applicable for all gear machining operations (shaving, hobbing, shaping, etc)
ECOCUT 720 LE	21	0.89	210	•	•	–	–	
ECOCUT HFN 13 LE UNI	13	0.85	194	•	•	•	•	Universally applicable for gear machining and grinding. Approved by the leading grinding machine manufacturers; low misting and low evaporation; available in other viscosities on request. Available in a H 304 free version as ECOCUT HFN 13 LE CLP
ECOCUT HSG 211 LE	11	0.84	172	•	•	•	•	High-performance grinding oil for gear grinding. Approved by the leading grinding machine manufacturers. Low misting and low evaporation
Specific Application – Spark Erosion								
ECOCUT FE	4	0.81	134	•	•	•	•	Dielectric medium, especially for roughing; free of aromatics
ECOCUT 1520	2,3	0.82	101	•	•	•	•	Dielectric, can be used for roughing as well as for finishing. Despite lower viscosity high flash point >100 °C
Specific Application – Threading								
ECOCUT 522	24	0.89	204	•	•	–	(•)	Solvent raffinate with chlorine-free EP additives; low misting and zinc-free. Especially for the threading of stainless steels and other machining operations on high-alloy materials
Specific Applications – Honing, Finishing								
ECOCUT HFN 5 LE-HC	4	0.84	136	•	(•)	•	•	Honing oil for steel and cast iron; also suitable for super-finishing and high-performance honing operations
ECOCUT GBS 5	5	0.83	150	•	(•)	•	•	For grinding and honing of balls and races in the roller bearing industry
ECOCUT FE	4	0.81	134	•	•	•	•	Machining medium for honing and finishing; based on white oils and free of aromatics
Spezific applications – AERO and Medical Industry								
PLANTOCUT 10 SR	10	0.86	206	•	•	•	•	Rapidly biodegradable, ester-based cutting oil. Recommended turning, milling, drilling, etc. Low evaporation and low misting; H304-free.
ECOCUT 7520 LE-S	17	0.88	210	•	•	–	–	High performance machining oil for the machining of high-alloy, difficult-to-cut materials used in aviation and medical technology.

(•) – Check compatibility with critical alloys

ECOCUT

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High-Alloy Steel	Alumi-nium	Copper, Copper Alloys	Main application area
Specific Application – Lapping								
ECOCUT HO 74	4	0.84	128	•	•	•	•	Universal lapping oil for all materials and for use with commonly-used lapping powders
Specific Application – Deep Hole Drilling								
ECOCUT MX 10	10	0.86	178	•	•	•	•	Mineral oil-based machining medium with EP additives for deep hole drilling; also suitable for nonferrous metals; conducting a suitability trial is recommended
ECOCUT 717 EK	18	0.89	196	•	•	–	(•)	
ECOCUT MXB 18	16	0.90	180	•	•	–	–	Mineral oil-based, low-misting machining medium with EP and AW additives for deep hole drilling; especially for the most difficult-to-machine materials; also suitable for drilling fuel injection holes; not suitable for nonferrous metals

Service Additives for Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Copper active	Application concentration [%]	Main application area
Adjusting Concentrate for Cutting Oils				
ECOCUT PLUS AN- NTN	75	–	1 - 2	Adjusting concentrate to reduce oil misting
ECOCUT PLUS KWU	36	•	1 - 100	Adjusting concentrate to improve cutting performance, tool life and surface finish
ECOCUT PLUS 800	27	•	1 - 100	Adjusting concentrate to improve cutting performance, tool life and surface finish; especially for the ECOCUT 800 Series
ECOCUT PLUS HK	32	–	1 - 100	Special adjusting concentrate for the PLANTOCUT Series when copper-inactivity is necessary

ANTIFOAM Defoamer for cutting oils – Products available on request