

ECOCOOL / ECOCUT / PLANTOCUT

Water-Miscible and Neat Cutting Fluids



LUBRICANTS.
TECHNOLOGY.
PEOPLE.





LUBRICANTS. TECHNOLOGY. PEOPLE.

We focus consistently on high-quality lubricants and related specialties.

We develop innovative and holistic solutions for a wide variety of applications.

We value the high level of commitment from our employees and their trusting interaction with one another.

Facts and figures

COMPANY:

FUCHS LUBRICANTS COMPANY, Harvey, IL, USA

FUCHS LUBRICANTS CANADA LTD., Langley BC and Cambridge ON, Canada

LUBRICANTES FUCHS DE MEXICO SA DE CV

Querétaro, Qro., Mexico

NORTH AMERICAN PLANT LOCATIONS:

Harvey, IL; Kansas City, KS; Huntington, WV; Langley,

BC; Cambridge, ON; Querétaro, Qro., MX

FUCHS has developed, produced, and sold lubricants and related specialties for more than 80 years – for virtually all applications and sectors. With over 100,000 customers and 57 companies worldwide, the FUCHS Group is the leading independent supplier of lubricants.

Our comprehensive North American team works to insure the needs of our customers are met. We link inter-disciplinary expertise between chemists and application specialists to deliver innovative lubricant solutions to meet the current and future demands, **every single day.**

ECOCOOL Water-Miscible Cutting Fluids

Safe, economical, and sustainable in use

FUCHS water miscible cutting fluids meet all regulatory requirements and offer reliable performance and optimum service life. Sustainability and worker compatibility are designed into the products.

ECOCOOL cutting fluids are:

- Free of nitrosamine-forming secondary amines
- Free of nitrites
- Free of hard complexing agents
- Operations friendly
- Free of heavy metals
- Sustainable
- Economical

This means more than just reliability and worker safety. ECOCOOL fluids operate with low operating, maintenance, and disposal costs resulting in excellent overall cost of ownership.

Optimum technical properties

FUCHS cutting fluids make machining operations more efficient.

ECOCOOL products provide:

- Optimum cooling and flushing
- Outstanding lubricity
- Excellent wear protection
- Effective corrosion protection
- Low foaming
- Good material compatibility
- Innovative materials
- Excellent EP properties
- Increased productivity

Available throughout the world

Our fluids are available to our customers globally. This means that all raw materials are registered and comply with chemical regulations in a multitude of countries. FUCHS offers water-miscible cutting fluids under the name ECOCOOL GLOBAL which can be manufactured anywhere in the world with the same formulation. This allows users to pursue globally harmonized manufacturing processes with the same fluids.

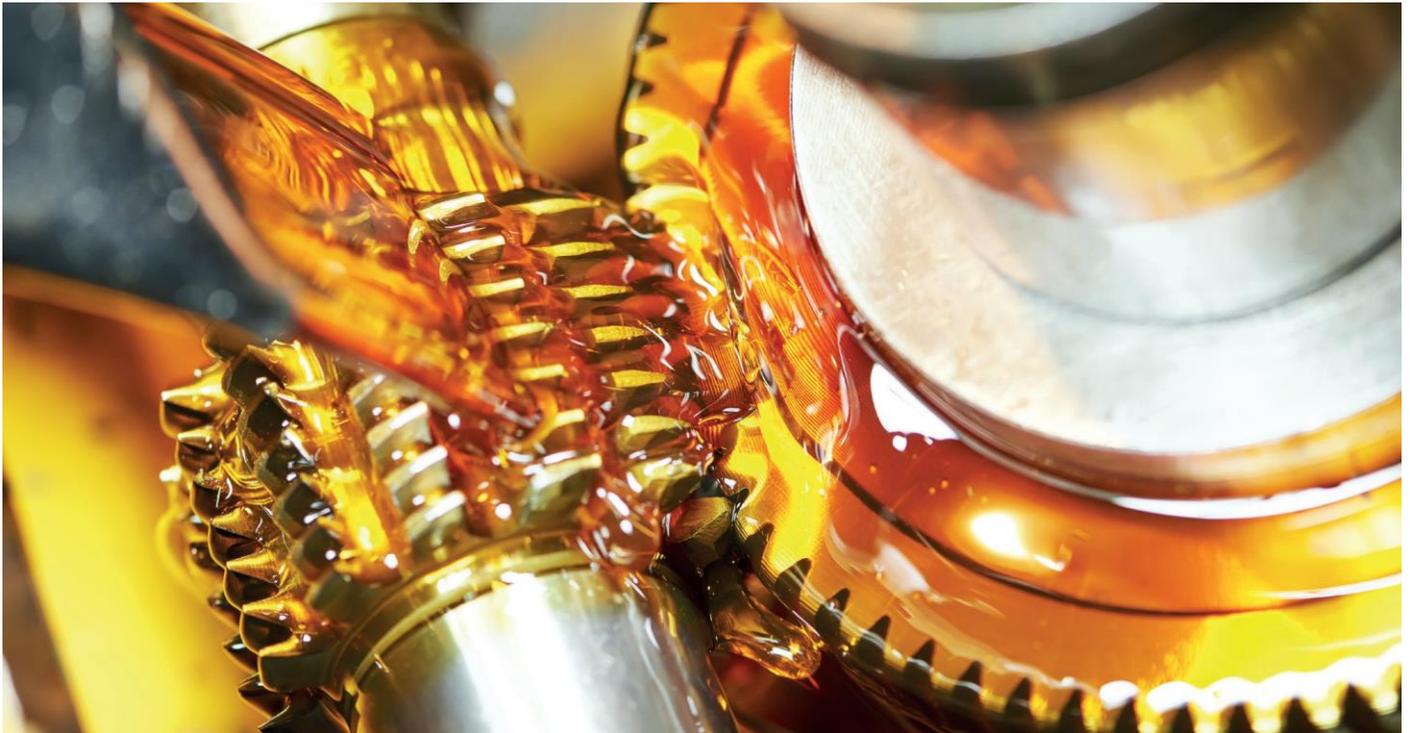


ECOCOOL Water-Miscible Cutting Fluids – Selection Details

Product	Additives		Substrate / Applications									
			Ferrous			Stainless		Cast Iron		Aluminum		Titanium
	Boundary	Extreme Pressure	Grinding	Light Duty	Heavy Duty	Heavy Duty						
Conventional Water-Miscibles												
ECOCOOL S761B	✓	✓		○	○	○				●	●	●
ECOCOOL S741	✓	✓	●	●	●	●	●	●	●	●	●	●
Semi-Synthetics												
ECOCOOL 7081C	✓	✓	○	○	○	○				●	○	○
ECOCOOL 7830C	✓	✓	○	○	○	○				●	●	●
ECOCOOL 3025 P	✓	✓	●	●	●	●	○	●	●	●	●	○
ECOCOOL 411	✓	✓	●	●	●	●	●	●	●	●	●	●
ECOCOOL 810	✓	✓	○	○	○	○		○	○	●	●	●
Fully-Synthetics												
ECOCOOL SYN 2175	✓			●	○	●	○			●	○	○
ECOCOOL SYN 6028	✓	✓	●	●	●	●	○	●	○			
ECOCOOL SYN 2180	✓		●	●	●	●	○	●	●			

✓ - Present | ○ - satisfactory | ● - preferred | Light Duty - turning, milling, drilling | Heavy Duty - tapping, reaming, broaching, gun drilling

ECOCUT and PLANTOCUT Neat Cutting Fluids



ECOCUT and PLANTOCUT neat metalworking fluids are designed for the latest ecological and workplace exposure considerations. They meet or exceed demands for efficient and cost effective metalworking. Additionally, this fluid line offers:

- Optimum heat transfer
- High lubricity
- Good flushing
- Enhanced machining performance
- Excellent environmental and health protection
- Designed for use on the most demanding alloys
- Meets or exceeds stringent demands of medical and aerospace

Local and global availability

Cutting fluid technology must adapt to the needs of the worldwide metal working industry. Our global FUCHS team makes sure that selected products are available in other parts of the world and maintain the same quality.

Special Product Solutions: Low-Emission and MQL Fluids



Low Emission Cutting and Grinding Fluids – Better for People, Better for Companies

ECOCUT LE and PLANTOCUT low emission cutting and grinding fluids resolve pronounced misting and evaporation issues common with conventional fluids. Ecocut LE series is formulated with premium base oils, and Plantocut series, with synthetic ester based fluids. Both series provide a proven high performance and stand out with their excellent economic value and low emissions. Additionally, these fluids provide:

- Enhanced air quality
- Reduced fire and explosion hazards
- Extended service intervals for oil separators
- Lower consumption



Minimum Quantity Lubrication (MQL) Products

Ecocut Mikro Plus and Planto Mikro are product series specially developed for MQL and are approved by leading MQL equipment manufacturers. Overall, they provide a high ease of spraying, optimum droplet characteristics, excellent lubrication, and low odor.

ECOCUT MIKRO PLUS fluids are fatty alcohol-based and provide:

- Higher flashpoint than ester oils of the same viscosity
- Evaporate relatively easily to allow components to dry quickly

PLANTO MIKRO fluids are ester oil-based and provide:

- Higher boiling and flashpoints – even at lower viscosity ranges
- Significantly lower generation of vapor
- Formation of a thin film on components that is dry to the touch

ECOCUT and PLANTOCUT Neat Cutting Fluids – Selection Details

Product	Viscosity 40C, cST	Active EP	Dual Purpose	Substrate / Applications									
				Ferrous					Cast Iron	Alu- minum	Titani- um	Non- Ferrous	
				EDM	Honing	Grin- ding	Light Duty	Heavy Duty	All	All	All	All	
ECOCUT 30 EDM	4			●						●			
ECOCUT 2302 GR	4					●	○		●	●			●
ECOCUT HONING OIL	7	v			●	●	●		●	●	●		
ECOCUT GD	12	v				●	●	●	●	●	●		
ECOCUT OM	17				●	●	●	○	●	●			●
ECOCUT 7031	19	v			●	●	●	●	●	●	●		
ECOCUT 7001 L	22	v				●	●	●	●	●	●		
ECOCUT SL	32	v					●	●	●	●	●		
ECOCUT SCM	32	v					●	●	●	●	●		
ECOCUT AK	32						●	○	●	●			●
ECOCUT HD	36						●	●	●	●	●		●
LDP 08023TH	38		●				●	●	●	●	●		●
ECOCUT 7031 SPECIAL	44	v					●	●	●	●	●		
ECOCUT LTN	46	v					●	●	●	●	●		
Low Emission Cutting and Grinding													
ECOCUT HFN 5DC	5				●	●	●			○	○	○	
ECOCUT HFN 10 LE	10		●		●	●	●	●	○	○	○	○	
PLANTOCUT 10SR	10				●	●	●	○	●	●	○	●	
ECOCUT HSG 211 LE	11				●	●	○	○	○	○	○	○	
Minimum Quantity Lubrication (MQL)													
	Viscosity 40C, cST		Steel	Cast Iron	Aluminum	Copper							
ECOCUTMIKRO PLUS 82	20		●	●	●	●							
ECOCUTMIKRO PLUS 20	27		●	●	●	●							
ECOCUTMIKRO 3000 C	33		●	●	●	●							

v - Present | ○ - satisfactory | ● - preferred | Light Duty - turning, milling, drilling | Heavy Duty - tapping, reaming, broaching, gun drilling

Complete Solutions for all of your Manufacturing Processes

FUCHS is the world's largest independent manufacturer of lubricants with the most extensive program of metalworking fluids. Our comprehensive portfolio is supported by years of application engineering experience and customized solutions to benefit your manufacturing processes.



ECOCOOL

MACHINING: WM*

- High performance
- Economical
- Outstanding lubricity



ECOCUT

MACHINING: NEAT

- Increased reliability
- Economical
- Low misting and low evaporation



THERMISOL

QUENCHING

- Low distortion
- Low consumption
- Good compatibility



RENOCLEAN

CLEANING

- Highly effective
- Unproblematic processes
- Outstanding emulsification and demulsification



RENOLIT

LUBRICATION: GREASES

- Compatible
- Long-term and life-long lubrication



RENOLIN

LUBRICATION: OILS

- Compatible
- Excellent corrosion protection
- Optimum wear protection



ANTICORIT

PROTECTION

- Optimum protection
- Clean application



RENOFORM

METAL FORMING

- Cold forming lubricants for all forming applications
- Compatible with RENOCLEAN metal cleaners



PLANTOCUT

MACHINING: NEAT

- Non-mineral oil
- Low emission
- MQL

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