## **ECOCOOL / ECOCUT / PLANTOCUT**

# **Metal Cutting Fluids for Precision Machining**





# 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 of 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 areas of application 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 is 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, disposal costs and 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 on a global basis. This means that all raw materials must be registered and comply with chemical regulations in the respective 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.



## **Core Product Selection - Water Miscibles**

Product	Description	Ferrous			Stainless		Cast Iron		Aluminum		Titanium	Yellow
		Grinding	Light Duty	Heavy Duty	Light Duty	Heavy Duty	Light Duty	Heavy Duty	Light Duty	Heavy Duty	Heavy Duty	
			C	onvention	al Water-N	/liscibles						
ECOCOOL S 741	Moderate, Chlorinated, HD Multi-Metals	0	•	•	•	•	•	•	•	•	•	
ECOCOOL S 785	Premium, High Sulfur, HD Steel	•	•	•	•	•						
Semi-Synthetics												
ECOCOOL 7081	Fighting, Multi-Metals	0	•	0	0				0	0		•
ECOCOOL 7830	Fighting, HD Aluminum, MD Steel	0	0	0	0				•	•	0	
ECOCOOL 711	Premium, Chlorinated, HD Multi-Metals	•	•	•	•	•	•	•	•	•	•	
ECOCOOL 715	Moderate, Non- Chlorinated, HD Multi-Metals	•	•	•	0	0	•	•	•	•	0	
				Fully-	Synthetic	:s						
ECOCOOL SYN 2175	Moderate, MD Aluminum, LD Steel	0	0	0	•	0			•	0	0	
ECOCOOL SYN 7060	Moderate, MD/HD Steel	•	•	•	•	0	0	0			0	
ECOCOOL SYN 7360	Premium, HD Steel	•	•	•	•	0	0	0				

O - 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 line of fluids offer:

- Optimum heat transfer
- High lubricity
- Good flushing
- Enhanced machining performance
- Excellent environmental and health protection
- Designed for use on the most demanding alloys
- Meet or exceed 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 in 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 issues with pronounced misting and evaporation common with conventional fluids. Ecocut LE series is formulated with premium base oils, and Plantocut series with synthetic ester base fluids. Both series provide proven high performance and stand out with their excellent economy and low emissions. Additionally, these fluids provide:

- Enhanced air quality
- Reduced fire and explosion hazards
- Extended service intervals
- 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

# **Core Product Selection – Straight Oil**

Product	Characteristics				Substrate / Applications										
					Ferrous						Cast Iron	Aluminum		Titanium	Yellow
	Viscosity 40C, cST	Active Sulfur	Chlorine	Dual Purpose	EDM	Honing	Grinding	Light Duty	Heavy Duty	All	All	All		All	All
ECOCUT V 30	4				•										
ECOCUT 377 HO	7					•	•								
ECOCUT 2190	10	√	√				0	•	•	•					
ECOCUT AB	10			√		•	•	0	0	0	0	•	•	•	•
ECOCUT SUPER PLUS 185	22	√	√				0	•	•	•					
ECOCUT 322	22			√		•	•	0	0	0	0	•	•	•	•
ECOCUT SUPER PLUS 185 OF	32	√	V				0	•	•	•					
ECOCUT 5591 AM	32			<b>√</b>		•	•	0	0	0	0	•	•	•	•
ECOCUT 44 C4	46	$\sqrt{}$	$\sqrt{}$				0	•	•	•					
ECOCUT 6546 NC	46			<b>√</b>		•	•	0	0	0	0	•	•	•	•
ECOCUT 5175 DP	68			$\sqrt{}$		•	•	0	0	0	0	•	•	•	•
					L	ow Emissio	n Cutting a	nd Grindii	ng						
ECOCUT HFN 5 DC	5					•	•	•			•	•	•	•	•
ECOCUT 710 LE	10	$\sqrt{}$				•	•	•	•	0					
ECOCUT HFN 10 LE	10					•	•	•			•	•	•	•	•
PLANTOCUT 10 SHD	10	√				•	•	•	•	0					
PLANTOCUT 10 SR	10					•	•	•			•	•	•	•	•
PLANTOCUT 20 SR	22					•	•	•			•	•	•	•	•

<sup>√ -</sup> Present | O - satisfactory | ● - preferred | Light Duty - turning, milling, drilling | Heavy Duty - tapping, reaming, broaching, gun drilling

#### **FUCHS Lubricants**

# 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**

- 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 lifelong 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
- MOL

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