

Product	Key Benefits	Machine capability	Key Application	Key Materials
Semi synthetic water soluble MWF				
MECAFLUID SS 1001 ECO	<ul style="list-style-type: none"> Boron and Biocide free Low oil content Excellent hard water tolerance Excellent stability in use 	General purpose machining, light duty machining	Milling, turning, drilling and grinding	Steel, Cast iron
MECAFLUID SS 3001 ECO	<ul style="list-style-type: none"> Boron and Biocide free Medium oil content EP additive Excellent hard water tolerance Excellent stability in use 	General purpose machining, and heavy duty machining	Milling, turning, drilling, boring and grinding	Steel, Cast iron, Aluminium
MECAFLUID SS 4001 ECO	<ul style="list-style-type: none"> Boron and Biocide free EP additive Excellent hard water tolerance Excellent stability in use 	General purpose machining, and heavy duty machining	Milling, turning, drilling, boring and grinding	Steel, Cast iron, Aluminium, Aerospace alloys, Yellow metals
MECAFLUID SS 3001 FF	<ul style="list-style-type: none"> Biocide free Medium oil content Excellent hard water tolerance High stability in use 	General purpose machining, and heavy duty machining	Milling, turning, drilling and grinding	Steel, Cast iron, Aluminium
MECAFLUID SS 3001	<ul style="list-style-type: none"> Medium oil content High stability in use Very good rust and corrosion protection 	General purpose machining, and heavy duty machining	Milling, turning, drilling and grinding	Steel, Cast iron, Aluminium
Synthetic fully soluble				
MECAFLUID SYN 1001 ECO	<ul style="list-style-type: none"> Boron and Biocide free Oil free Excellent stability in use Excellent rust and corrosion protection 	Grinding	Grinding	Steel, Cast iron
Water soluble emulsion MWF				
MECAFLUID SM 4001 ECO	<ul style="list-style-type: none"> Boron and Biocide free Exceptional for yellow metals High oil content emulsion Excellent hard water tolerance Excellent stability in use 	General purpose machining, heavy duty machining	Milling, turning, drilling, boring	Steel, Aluminium, Aerospace alloys, Yellow metals
MECAFLUID SM 5001 ECO	<ul style="list-style-type: none"> Boron and Biocide free High oil content EP additive Excellent hard water tolerance Excellent stability in use 	General purpose machining, heavy duty machining	Milling, turning, drilling, boring	Steel, Cast Iron, Aluminium, Aerospace alloys, Yellow metals
Synthetic ester based neat oil				
MECAFLUID NE 8 SYN	<ul style="list-style-type: none"> Synthetic neat oil Excellent coolant and lubrication Excellent resistance to oxidation 	General purpose machining, and grinding	Grinding	Steel, Cast Iron, Aluminium, Aerospace alloys, Yellow metals
Neat oil				
MECAFLUID NO 23 EP	<ul style="list-style-type: none"> Neat cutting fluid with EP additives Yellow metal compatibility Very good extreme pressure performance 	General purpose machining, and heavy duty	Heavy duty machining, grinding	Steel, Cast Iron, Aluminium, Aerospace alloys, Yellow metals



METALWORKING FLUIDS

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Get the most out of your metal machining equipment

When you're trying to drive improvements in production while lowering costs, you'll need a partner with technical expertise in the metalworking industry.

PETRONAS Industrial Solutions offers a range of chlorine, phenol and nitrite free water-soluble and neat metalworking fluids for improved productivity, flexibility and safety. We've formulated the **PETRONAS Mecafluid Series** to include the latest Boron and Biocide free (formaldehyde free) formulation technology for machining with a wide range of metals. Their stable emulsions make them bacteria- and fungal-resistant, extending tool and sump life and reducing maintenance costs.

By partnering with you to solve the problems you face today and tomorrow, we can help you move ahead and develop your business. Together with our insight-driven services, we'll help you improve reliability, reduce your operating costs and free up your potential – all because we share your goals and priorities.



Strengthening progressive businesses from within

As the world comes together to tackle the climate crisis, businesses need strong partners to help them develop the resilience they need to progress and grow in sustainable ways. **PETRONAS Industrial Solutions** works as one with our customers to strengthen your operation from within, developing a deep understanding of your needs and delivering against them with innovative services and energy-efficient solutions that set a clear path to a carbon neutral future. Together, we drive industrial resilience and deliver sustainable performance.



Your key to maximizing performance

We've developed a comprehensive portfolio of metalworking fluids that serves every type of multi-metal machining. Choose the right product for your applications and take the operational performance of your metal machining equipment to the next level.

		Gas Engine (Natural Gas)	Gas Engine (Bio and Landfill Gas)
SUPREME		MECAFLUID SS 1001 ECO ⬇ Boron and Biocide free ⬇ Low oil content ⬇ Excellent hard water tolerance ⬇ Excellent stability in use	
		MECAFLUID SYN 1001 ECO ⬇ Boron and Biocide free ⬇ Oil free ⬇ Excellent stability in use ⬇ Excellent rust and corrosion protection	
		MECAFLUID SS 3001 ECO ⬇ Boron and Biocide free ⬇ Medium oil content ⬇ EP additive ⬇ Excellent hard water tolerance ⬇ Excellent stability in use	
		MECAFLUID SS 3001 ECO ⬇ Boron and Biocide free ⬇ High oil content ⬇ EP additive ⬇ Excellent hard water tolerance ⬇ Excellent stability in use	
		MECAFLUID SS 3001 ECO ⬇ Boron and Biocide free ⬇ Exceptional for yellow metals ⬇ High oil content emulsion ⬇ Excellent hard water tolerance ⬇ Excellent stability in use	
		MECAFLUID SS 3001 ECO ⬇ Boron and Biocide free ⬇ EP additive ⬇ Excellent hard water tolerance ⬇ Excellent stability in use	MECAFLUID NE 8 SYN ⬇ Synthetic neat oil ⬇ Excellent coolant and lubrication ⬇ Excellent resistance to oxidation
PREMIUM	MECAFLUID SS 3001 FF ⬇ Biocide free ⬇ Medium oil content ⬇ Excellent hard water tolerance ⬇ High stability in use		
STANDARD	MECAFLUID SS 3001 FF ⬇ Medium oil content ⬇ High stability in use ⬇ Very good rust and corrosion protection	MECAFLUID NO 23 EP ⬇ Neat cutting fluid with EP additives ⬇ Yellow metals compatibility ⬇ Very good extreme pressure performance	
BASIC	Kindly consult PETRONAS sales and technical services for recommendations.		

Helping you develop resilience for sustainable growth

PETRONAS Lubricants International is part of the PETRONAS Group. Our approach to fluids is to focus on whole system performance and prolong the working life of your vehicle or machine's system. Our world class technologists strive to develop lubricants that lead the field and earn the all important endorsements of leading OEMs. We're passionate about helping our customers stay focused on their progress no matter what and provide the services and support needed to overcome the challenges of today and tomorrow.