



METALWORKING

COOLANTS & OILS

COGELSA[®]
EFFICIENT LUBRICATION

1916-2016, 100 Years of experience in lubrication technologies



COGELSA, which means **COMPAÑÍA GENERAL DE LUBRICANTES, S.A.**, is an independent lubricant developer and manufacturer which was established more than 100 years ago in the Barcelona area in Spain.

Through all these years, the company has gathered a wide experience in different fields of industrial applications.

COGELSA works closely with various additive suppliers and research institutes in order to be aware of the latest technologies, enabling the R+D teams to formulate state-of-the-art special lubricants.

One of the key product ranges within the **COGELSA** portfolio is the **METALWORKING COOLANTS AND NEAT OILS**.

This product family has been designated as strategic for the company growth, and an important part of the global investment is being done here.

New specific laboratory devices are being acquired, larger production facilities are being implemented, fresh talent is joining the company and a powerful and robust product range is being launched to the market.

COGELSA supplies **METALWORKING COOLANTS AND NEAT OILS** to top customers in more than 30 countries worldwide through its wide distribution network, from Asia to Europe, North of Africa and Latin America.

COGELSA supplies **METALWORKING COOLANTS AND NEAT OILS** to top multinational firms which have the highest demands in product stability and performance.

COGELSA provides a high level technical service in order to advice which product to use, but also following up the product performance on site with regular laboratory analysis to enable a long life cycle.

We are convinced that your company will be fully satisfied by using **COGELSA** products.

We will be pleased to be your technical partner and help your business grow, so that you can concentrate on your value added proposal.

Let **COGELSA** take care of your industrial fluids!

Formaldehyde free COOLANTS	Type of emulsion	Water range approx.	% Mineral Oil	Refractometer factor	Cast Iron	Carbon steel	Stainless steel	Aluminum	Yellow metals
CUTTINSOL GREEN 102 Synthetic soluble fluid containing nitrites. Used for grinding applications ("green coolant").	Green - Transparent	0 - 80	0	4,0	•••	•••	•	-	-
ULTRASOL 50 R Synthetic product for grinding and light machining processes. Suitable for cast iron, steel and ferric alloys.	Transparent	0 -40	0	2,6	••••	••••	••	-	-
ULTRASOL HM-S Synthetic product for grinding processes and light and medium machining of hard-metals and steels.	Transparent	0 -40	0	1,8	••••	••••	••	•	-
ULTRASOL 075 NS Synthetic soluble without mineral oil, free of boron for grinding and machining of ferrous metals, cast iron, nodular cast iron and medium and low difficulty carbon steels. Can be used for conventional aluminum machining	Transparent	0 - 90	0	2	••••	••••	••	-	-
CUTTINSOL 5 Soluble fluid for general machining ("white coolant"). Suitable for all kind of metals.	Milky	0 - 40	>70	1,0	•	••	•	••	••••
CUTTINSOL 231 Semi-synthetic coolant product for machining and grinding of steel and in some cases aluminum.	Opalescent	0 - 30	20	1,9	••••	•••	••	••	-
ULTRASOL 210 Boron-free semi-synthetic coolant suitable for machining and grinding of steel, and in some cases aluminum.	Opalescent	0 - 30	20	1,9	••••	•••	••	••	-
ULTRASOL 335 Soluble fluid for machining and grinding of steels, stainless steel, cast iron and aluminum. It is used in operations of medium and high difficulty.	Milky Opalescent	0-40	33	1,0	••••	••••	••••	••••	••
CUTTINSOL 532 Soluble fluid for machining all aluminum alloys, and steels . It is used in operations of medium and light difficulty.	Milky	0 - 30	52	1,0	•••	•••	•••	•••	-
ULTRASOL 631 Soluble fluid for machining all aluminum alloys, steels and compatible with yellow metals. It is used in operations of medium and high difficulty.	Milky	0 - 30	50	1,0	•••	••••	•••	••••	•••
ULTRASOL E 55 Boron-free soluble fluid for machining and grinding of steel, cast iron and aluminum. It can be used in some cases for yellow metals, but it is not suitable for galvanized materials. This is a lubro-coolant based on state-of-the-art components, EP additives and anti-corrosion additives. It can be used in medium and high difficulty operations.	Opalescent	5 - 50	0	1,3	•••	••••	••••	••••	•••
ULTRASOL 671 Boron and amine-free soluble fluid used for machining yellow metals. It can also be used in some cases for machining magnesium.	Milky	15 - 80	60	1,0	•	•	••	•••	••••
ULTRASOL 440 Semi-synthetic water emulsifiable cutting fluid, with high mineral oil content. It is free of formaldehyde release agents and boron. Suitable for the machining of ferrous metals and aluminums for medium and high severity operations.	Milky Opalescent	0-40	40	1,1	••••	••••	••	••	•
ULTRASOL 452 Soluble fluid for machining all aluminum alloys, steels and compatible with yellow metals. It is used in operations of medium and high difficulty.	Milky Opalescent	20-70	40	1,0	••••	••••	••••	••••	•••
ULTRASOL BIO 475 Boron and amines free fluid for multimetal machining. Suitable for operations of medium and high difficulty. Compatible with aerospace aluminums.	Milky Opalescent	5-70	40	1,0	••	•••	•••	••••	••••

•••• Very appropriate ••• Quite appropriate •• Appropriate • Barely appropriate - Not recommended

General range **COOLANTS**

ULTRASOL 064

Boron-free synthetic fluid suitable for flat and cylindrical grinding of ferrous metals, cast iron, nodular cast iron and steels with high carbon content.

CUTTINSOL 5 T

High stability soluble fluid for general machining ("white coolant"). Suitable for all kinds of metals.

CUTTINSOL 7

Semi-synthetic product for machining ferrous metals, cast iron, nodular cast iron and carbon steels. It withstands extreme water conditions and high pressures

ULTRASOL 45 AD

Semi-synthetic water emulsifiable cutting fluid for machining operations (turning, milling, drilling, etc.) of steels and cast iron, as well as of non-ferrous metals, outstanding for its great balance between lubricating capacity and cooling power and machine cleaning.

ULTRASOL 60 EP

Soluble fluid for machining and grinding of steels, stainless steel, cast iron and aluminum. It is used in operations of medium and high difficulty.

ULTRASOL 25 NF

Soluble fluid, boron and amines free, suitable for the machining of steel, cast iron, aluminum and yellow metals. It can be used also, in some cases, for machining magnesium. Suitable for operations of high and medium difficulty. It is compatible with aeronautical aluminum.

Type of emulsion	Water range approx.	% Mineral Oil
Transparent	0 - 70	0
Milky	0 - 50	>70
Transparent / Opalescent	0 - 100	0
Milky opalescent	20 - 80	30
Milky opalescent	5 - 60	28
Milky opalescent	10 - 50	45

Refractometer factor	Cast Iron	Carbon steel	Stainless steel	Aluminum	Yellow metals
2,5	•••	•••	••	-	-
1,0	••	••••	•	••	••••
1,5	••••	••	•	•	-
1,3	••••	••••	••	••	••
1,0	••••	•••••	•••••	••••	•
1,0	••	••••	••	••••	••••

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ADDITIVES FOR BATHS

BIOPOL K 14	Bactericide and fungicide for tank shock treatments. Use 1 liter for 10.000 liters of emulsion.
DEFOAMER E	Antifoam for tank shock treatments. Use 1 liter for 10.000 liters of emulsion.
DEFOAMER K	Additive for increasing the water hardness based on calcium salts.

OTHER PRODUCTS

STANDARD SYSTEM CLEANER	System cleaner for replacing used emulsions. Add 1-2% on the used emulsion.
ULTRADEG WASH	Water based cleaner for exterior and interior wall machines. Ready to use. Does not attack paintings.



NEAT CUTTING OILS	Color	Viscosity @40°C	Density @15°C		Copper corrosion	Carbon steel	Stainless steel	Aluminum	Yellow metals
ULTRACUT GR 3.5 High performance neat cutting oil for honing and grinding. Also suitable for general machining of non-ferrous metals.	0,5	3.5	0,82		1b	•••	••	•••	••
ULTRACUT GR 5 High performance neat cutting oil for honing and grinding. Also suitable for general machining of non-ferrous metals. Based on HC base oil.	0,5	5	0,84		1b	•••	••	•••	••
ULTRACUT GR 10 S High performance neat cutting oil for finishing operations. Also suitable for general machining of non-ferrous metals. Based on HC base oils.	1,5	7	0,84		1b	•••	••	•••	••
ULTRACUT GR 12 CS High performance neat cutting oil for finishing operations. Also suitable for general machining of non-ferrous metals. Based on HC base oils.	2,5	13	0,85		1b	•••	••	•••	••
ULTRACUT GR BIO 8 Low viscosity neat cutting oil, based on advanced biodegradable ester technologies. It's designed for grinding and severe super finishing operations.	0,5	8	0,93		1a	•••	•••	•••	•••
ULTRACUT ECO General machining of non-ferrous metals and ferrous metals (easy operations). Suitable for aluminum grinding. Bar turning.	2,5	21	0,86		1a	•	-	•••	•••
ULTRACUT UNI Multi-metal and multi-purpose machining oil. Contains anti-mist additives. Suitable for bar turning.	1,5	21	0,86		1b	•••	••	••	••
ULTRACUT EXTRA High severity machining oil for steel and stainless steel. Contains anti-mist additives.	2,5	21	0,89		4c	•••	•••	•	-
ULTRACUT EXTRA NGM High severity machining oil for steel. Based on hydro-cracked base oils. Contains anti-mist additives. Suitable for precision bar turned parts. Suitable as well for medical implant machining.	3,5	22	0,86		2 b	•••	••	••	•
ULTRACUT SUPER Recommended for gear cutting and threading by rolling. Medium and severe machining of ferrous metals.	1,5	30	0,87		2c	•••	••	•	-
ULTRACUT MV 2114 Suitable for high severity machining of all kinds of metals. Can be used for drilling and broaching at low speed. Recommended for PFIFFNER machines (high precision bar turning).	2	15	0,87		1b	•••	•••	•••	••
ULTRACUT TP 2740 Suitable for high severity machining of steel. Recommended for difficult deep drilling and broaching. Based on hydro-cracked base oils. Contains anti-mist additives.	1,5	15	0,88		2a	•••	•••	••	-
ULTRACUT BIO 22 Vegetal-based neat oil. It can be used as a universal product for most operations and materials. Very appropriate for medical industry applications as well.	2	22	0,86		1a	•••	•••	•••	•••

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NEAT CUTTING OILS

	Color	Viscosity @40°C	Density @15°C		Copper corrosion	Carbon steel	Stainless steel	Aluminum	Yellow metals
PRODACUT General machining of copper, tin and bronze. Bar cutting, turning, milling and drilling of low severity on low-alloy steels.	2,5	20	0,86		1b	••	••	•••	•••
FERROCUT 10 Basic machining of all metals. Containing EP additives. Good efficiency in aluminum and copper machining. Bar cutting, turning, milling and drilling of medium severity.	2	18	0,87		1b	•••	•••	••	••
FERROCUT 30 Severe low-speed machining. High EP content. Recommended for gear cutting and thread rolling.	2	38	0,90		2c	•••	•••	•••	•
FERROCUT 40 Medium and high severity machining of steels. High EP content. Indicated for mid to high speed internal and external broaching, as well as for deep drilling of alloy steels.	2	22	0,89		2a	•••	•••	•••	•

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"COGELSA is an active member of different metalworking associations."

MQL CUTTING OILS	Color	Viscosity @40°C	Density @15°C		Copper corrosion	Carbon steel	Stainless steel	Aluminum	Yellow metals
ULTRACUT BIO 100 SP Aluminum cutting process by disc-saw	blue	10	0,93		1a	••	•	•••	•••
ULTRACUT BIO 300 SP Synthetic oil specially recommended for general machining.	2	32	0,93		1a	••	•	•••	•••
ULTRACUT BIO 500 SP Synthetic oil specially recommended for general machining.	2	46	0,92		1a	••	••	•••	•••
ULTRACUT BIO 600 SP Synthetic oil specially recommended for general machining and difficult operations. Special for drilling.	2,5	32	0,92		1b	•••	•••	••	••
ULTRACUT BIO ALC 25 Aluminum cutting process by disc-saw and by belt-cut. Large and complicated parts.	0,5	27	0,85		1a	••	••	•••	•••
ALUMOL FLUID 32 Aluminum cutting process by disc-saw and aluminum machining.	0,5	31	0,84		1a	•	•	•••	••
ULTRALUB EV 460 S Aluminum cutting process by disc-saw. Aluminum profiles.	<0,5	2,5	0,80		1a	•	-	•••	••
ULTRALUB EV 9 Aluminum cutting process by disc-saw. Aluminum profiles. Vanishing oil for forming operations.	<0,5	1,5	0,79		1a	-	-	•••	••

EDM DIELECTRIC OILS	Color	Viscosity @40°C	Density @15°C		Copper corrosion	Carbon steel	Stainless steel	Aluminum	Yellow metals
UTRACUTTING LIGHT Very low viscosity oil special for electrodischarge machining. Suitable for machines with self-washing filters. Tested in ONA.	<0,5	1,6	0,75		1a	•••	-	-	-
CUTTINOIL EL Very low viscosity oil special for electrodischarge machining, particularly for roughing. High flash point.	<0,5	2,5	0,82		1a	•••	-	-	-

SLIDEWAY OILS

compatible with **EMULSIONS**

	Color	Viscosity @40°C	Density @15°C		Copper corrosion
ULTRAGUIDE 68 Oil recommended for horizontal slideway featuring a high adhesion and preventing the "stick-slip" effect. Compatible with coolants due to its separation power.	1,5	68	0,87		1 b
ULTRAGUIDE 220 Oil recommended for vertical slideway featuring a high adhesion and preventing the "stick-slip" effect. Compatible with coolants due to its separation power.	2,5	220	0,88		1 b

R+D



COGELSA has a full range of services giving a complete support to the application of its METALWORKING FLUIDS.

- **Analysis of emulsions:** We do a close follow up of the coolant "in use", with complete analysis reports for assuring optimal performance (concentration, pH, conductivity, bacteria, etc.)
- **Micro Tap measurements:** They will give you information about temperature and torque in order to compare lubricity of coolants. Application possible on different kind of metals (various steel types, aluminum and brass).

COGELSA can also supply you other relevant data like Reichert test, superficial tension and various important and key parameters, for a perfect monitoring of your coolants.

COGELSA has set the focus in developing coolants and neat oils for metalworking applications taking into account the latest regulations and market trends:

- Amine free coolants
- Boron free coolants
- Formaldehyde releasers free coolants.

The base oils used for the formulation of these **new generation coolants** include ester base oils which increase the lubricity and refrigeration of the product in use.

These are the so called neo-synthetic coolants.

Informe técnico de laboratorio

CLIENTE: METALCANGIADOS AGC
 PRODUCTO: Ultracool 45 AD
 REF. CLIENTE: 1
 OPERACION: Metalizado

NO INGRESO: 207267
 COMERCIAL: A Genia
 FECHA RECOPILACION: 02/12/2018
 FECHA EMISION: 02/12/2018

PARAMETRO	UNIDAD	VALOR	VALOR SUP.	VALOR INF.	VALOR SUP. RECOMENDADO	VALOR INF. RECOMENDADO
Alcalinidad	mg/l	0.0	0.0	0.0	0.0	0.0
Conductividad (Electrolitos)	µS/cm	100	100	100	100	100
Conductividad (Cationes Acidos)	µS/cm	0.0	0.0	0.0	0.0	0.0
Dureza pH	pH	9.0	9.0	9.0	9.0	9.0
Conductividad	µS/cm	100	100	100	100	100
Bacterias (Coliformos Diploco)	CFU/ml	No Contiene	No Contiene	No Contiene	No Contiene	No Contiene
Plasmog (E. coli)	CFU/ml	No Contiene	No Contiene	No Contiene	No Contiene	No Contiene
Coliformos	CFU/ml	No Contiene	No Contiene	No Contiene	No Contiene	No Contiene
Reichert	mg KOH/g	100	100	100	100	100

ACCIONES:
 Muest. & L.V. de aceite resultante

Concentración (%)

Valor pH

Conductividad (µS/cm)

Concentración (ppm)



COGELSA has a laboratory with about 500 m² and 7 full time technicians. It is used for research, development and quality insurance purposes.

COGELSA has the ability to design and formulate tailor-made lubricants which meet the new demands of the latest industrial applications.

COGELSA has specifically dedicated production reactors for metalworking products. The company is continuously investing in new facilities and expanding the production capacity.

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EFFICIENT LUBRICATION

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