



Almaredge™ SL

General Purpose Soluble Cutting Fluid

Description

Castrol Almaredge™ SL (previously called Cooledge™ SL) is a general purpose soluble cutting fluid, based on solvent refined premium quality mineral oil and good package of emulsifier and corrosion inhibitors. It forms milky white emulsion.

Almaredge SL is recommended for general purpose metal cutting operations of ferrous and non ferrous materials, where high quality coolant is required.

Application

- Highly stable emulsion
- Low foaming
- Excellent rust protection
- Broad spectrum product
- Operator friendly
- Economical in use

Typical Characteristics

Name	Method	Units	Almaredge SL
Appearance	Visual		Dark Brown Clear liquid
Specific Gravity @ 29.5°C	ASTM D1298 / ISO 3675	g/ml	0.89
pH (5% Emulsion in D/W)			9.0
Emulsion Stability (for 24 hr)			
5% in Tap Water			Stable
5% in 400ppm Hard Water			Stable

Subject to usual manufacturing tolerances.

Recommended Concentrations

Operation	Mild Steel	Alloy Steel	Copper Alloys	Aluminium Alloys
<i>Milling, Fuming & Drilling</i>	1:20	1:20	1:20	1:20
<i>Reaming Tapping & Screwing</i>	1:15	1:10	1:20	1:20
<i>Grinding</i>	1:30	1:30	1:30	1:30

Weak emulsion	Over strength emulsion
Make up an emulsion of 10% strength and make additions in litres as shown below for every 100 litres in the system	Make up an emulsion of 1 % strength and make additions in litres as shown below for every 100 litres in the system.
Note: Always use premixed emulsions for topping-up.	Note : If may be necessary to drain some of the existing coolant to facilitate these additions

Concentration Control

Required Emulsion Strength

1.25	3						
1.67	8	5					
2	12.5	9.5	4				
2.5	20	16.5	11	6.5			
3.3	35	31	25	20	12.5		
5	80	75	67	60	55	33	
	1	1.25	1.67	2	2.5	3.3	5

Required Emulsion Strength

10							
5	125						
3.3	286	71					
2.5	500	167	56				
2	800	133	50				
1.67	1250	500	250	125	50		
%	10	5	3.3	2.5	2	1.6	7

Measured Emulsion Strength

% Concentration	1	100:1	Dilutio Ratio
	1.25	80:1	
	1.67	60:1	
	2	50:1	
	2.5	40:1	
	3.8	30:1	
	5	20:1	
	10	10:1	

User Advice

Coolant Management System

A) System Cleaning (Preparation of Machine)

Before changing an emulsion ensure that machines are thoroughly cleaned. The system cleaning may be carried out as detailed here under:

- Circulate the old coolant in the system with 2% of 'Techniclean MTC-4" for at least 24 hours prior to change over Coolant.
- Drain \ discharge the coolant and clean the coolant tank manually.
- Refill the tank with 1% solution of Techniclean MTC-4 and circulate it for 2 hours.
- Drain the solution.
- Charge the sump with clean water and circulate the same for 2 hours. Drain the water completely.
- Recharge the system with 1 % solution of Coolant to be charged and -circulate for at least one hour and then drain completely.

The system is now ready for fresh charge of new coolant.

B) Coolant Preparation

Always add oil to water under agitation. Ensure that separate clean container is used for mixing, and do not use galvanised containers. Do not mix in machine sumps.

REMEMBER A GOOD MIXING ENSURES LONGER COOLANT LIFE.

C) Coolant Maintenance:

To ensure optimum performance of emulsion

- Check the emulsion strength regularly and adjust if necessary as per the chart shown below.
- To minimize bacteria problem maintain correct pH value by checking at regular interval.
- Avoid Contamination from workshop debris and tramp oils.

Additional Information

Cooledge SL conforms to BIS-1115-1986 specification. Please specify product code 202 - 7011 in the purchase order.

Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45 °C / 41°F and 113°F.

For more details, please refer the product safety data sheet

This product was previously called Cooledge SL. The name was changed in 2015.

Almaredge™ SL

19 Feb 2015

Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

www.castrol.com/industrial