



PRODUCT BULLETIN

NALCOOL 4100

HEAVY DUTY LONG LIFE PREMIX COOLANT

Product Description: **4100 Diesel Engine Coolant** is a low silicate, phosphate-free and amine-free, fully formulated, hybrid organic technology, **automotive** and **heavy-duty** diesel engine premixed coolant. This product does not require a charge of Supplemental Coolant Additive (SCA) during the initial fill. The product was designed for use in both automotive and heavy-duty diesel applications and is compatible with heat rejecting aluminum surfaces.

Benefits: **Long Life, Hybrid Organic Technology** – 1,000,000km 4 years or 12,000 hours prior to first SCA requirement in a heavy-duty diesel application.

No initial charge of supplementary coolant additive (SCA) required. (Not required to meet ASTM D6210).

Universal use – meets or exceeds standard industry requirements for automotive and heavy-duty diesel applications for a fully formulated anti-freeze anti-boil premix coolant.

Product is compatible with other engine coolants; although to get best performance (regarding issues such as long life and time between SCA addition), it is best to flush the old coolant and replace with Nalcool 4100 or Nalcool 4070 at a 50% blend.

Dosage: Nalcool 4100 is a premixed antifreeze inhibitor to be used **undiluted**.

Handling: Reference: M.S.D.S for Nalcool 4100 before using this product.

Service: Technical representatives can assist in the evaluation and implementation of a treat program involving this product.

Full technical support of a NATA registered laboratory is available as part of Nalco's in-plant service.

Nalcoool 4100

Specifications: Nalcoool 4100 H/Duty Long Life Engine Coolant meets or exceeds the performance requirements of the following engine coolant specifications:

OEM / Agency	Specifications	OEM / Agency	Specifications
ASTM	D-3306 / D-4985 / D-6210	Daimler Chrysler	MS 7170, MS9769
AS/NZS	2108.1:1997 Type A	Ford	ESE-M97B44A, ESE-M97B18-C
JIS	K 2234	Ford	WSS-M97B51-A1
Caterpillar	EC 1 (Section 2.3 –4.5 incl.)	Freightliner	48-2288D
Cummins	Bulletin CES14603	Kenworth	RO26-170-97
Detroit Diesel	Bulletin # 7SE 298	New Holland	WSN-M97B18-D
GM	1825M / 1899M, GM Heavy Truck	Peterbilt	8502.002
John Deere	JDM HD24	Perkins	D-4985 / D-3306
MAN	324	Volvo	Heavy Truck
Massey Ferguson	D-4985 / D3306	US Federal	A-A-870-A
Mack	ASTM D-4985, HeavyTruck, Mack E7	TMC	RP 329
Mercedes-Benz	DBL 325.2.	GMH/Isuzu	HN 2217
MTU	(EVP 1 1827/MTL 5048)	Nissan	ASTM D-3306/ ASTM D-4985
SAE	J 1034 / J 1941	Mitsubishi	AS/NZS 2108.1:2004 Type A
Saab-Scania Renault	6901 Type D	Waukensha	Technical Bulletin Forum 6274 First Edition

Nalcoool 4100 H/Duty Long Life Engine Coolant Physical and Chemical Properties.

Test	Performance	Test Method	Test	Performance	Test Method
pH (50% v/v)	7.6-8.5	ASTM: D-1287	Reserve Alkalinity, ml	6.0 min.	ASTM: D-1121
Specific Gravity (15.6°C)	1.125 – 1.135	ASTM: D-1122	Freeze Point (50%v/v)	-37°C / -34°C	ASTM: D-1177
Foam Volume (ml)	50 max.	ASTM: D-1881	Break Time (sec)	5 max.	ASTM: D-1881
Flash Point	116°C / 240°F	ASTM: D-92	Fire Point	120°C / 248°F	
Ash Content (wt. %)	5 max.	ASTM: D-1119	Odour	Characteristic	
Colour	Green		Total Glycols (Weight %)	94.0 min	
Inhibitors & dye (weight%)	5.0 max.		Total Apparent Water (Weight%)	3.5 max.	
Chloride ppm	25 max.		Silicon ppm	185 max.	

Instructions For Use:

Before Treatment:

- Drain the existing coolant and chemically clean the system if necessary, to remove any rust dirt or oil and built up residue.
- Use **Nalco LB510** Radiator Cleaner.
Initial Dosage:- Add Nalcoool 4100 neat DO NOT DILUTE.
Preventative maintenance: If coolant is lost from the system, always top up with Nalcoool 4100 Premix or Nalcoool 4070 concentrate at the recommended dose rate.

Passenger Vehicles:

- There is no requirement to replenish inhibitor during the life of the coolant. Coolant should be drained and replaced within 4 years or more often in adverse conditions. Always flush and use a Nalco radiator cleaner **LB510** between coolant changes.

Heavy Duty Diesel Vehicles:

- These vehicles do not require the coolant to be re-dosed at regular intervals or replacement of expensive water filters. Performance period is 1,000,000 kms 4 years or 12,000 hours. Top up with Nalcoool 4100 premix or Nalcoool 4070 concentrate at the recommended dose rate.
Always pre-condition the cooling system with Nalco radiator cleaner **LB510** between coolant changes to obtain maximum cooling system efficiency.

Quality:

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