

REFERENCE:	Nova Bus Manuals
SECTION:	09: Engine and Cooling
RS N°:	N/A
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: N/A

SUBJECT:	Engine coolant
JUSTIFICATION:	Information about the engine coolant.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	-	-	-	-
2	-	-	-	-

#### MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
<b>LEVEL 1</b>				
-	-	-	-	-
<b>LEVEL 2</b>				
-	-	-	-	-

#### DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED	* Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect.
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#### REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2021FE04	Initial release	André Pelletier

APPROVED BY:

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**NOTE**

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See the engine's corresponding owner's/operation and maintenance manual for specific engine coolant maintenance, requirements and specifications.

Compliance with Cummins recommendations for permissible coolants and additives is mandatory. Only coolants homologated by Cummins can be used (CES 14603).

See Fluids for Cummins® Products Service Manual, Bulletin 5411406. Reference Section 5. Available on their website:

<https://qsol.cummins.com/qs3/portal/service/manual/en/5411406/>

## COOLANT MIXING

Coolant types should not be mixed in the engine. However it is recognized that:

- There are emergency situations where there may be no other option than to mix two different coolant formulations.
- There may be some business justification for very controlled situations involving mixing of coolants as part of a coolant changeover plan wherein the customer is making a concerted effort to move from using one coolant formulation to another coolant formulation and they want to avoid the cost of a 100% coolant drain and replacement which can be very costly for a large fleet.

Topping-up with different types of coolants should be done in emergency situations only.

The official mixing limit is 20% regardless of coolant type.

Color is not a reliable method for identifying coolant. Coolant mixing, contamination, and degradation can influence coolant colors. Additionally, some brands may use different formulations and colors.

Topping off the cooling system using the same coolant formulation used to fill the cooling system is critical for maintaining additive concentrations and freeze protection. Never top off cooling system with water only. This can lead to deposit formation and inadequate corrosion and cylinder liner protection.

Organic acid technology (OAT)/Extended Life coolants use high levels of salts of organic acids for cylinder liner pitting protection and do not use nitrite and or molybdate. Therefore, these coolants do not have SCA numbers. Additionally, OAT additives deplete much slower than conventional additives and as a result OAT coolants do not require addition of SCA products. Meaning that OAT must use chemical-free coolant filters.

