

# Cat<sup>®</sup> NGENC<sup>™</sup> Premix 50/50

Natural gas engine coolant for all Caterpillar  
and most original equipment manufacturer natural gas engines.

## Recommended Use

Cat NGENC Premix 50/50 is a heavy-duty cooling system fluid especially designed to provide superior protection against pitting, freezing, and corrosion in Caterpillar natural gas engines. It protects all metals including aluminum.

Cat NGENC meets ASTM D6210 and ASTM 4985 standards for heavy-duty antifreeze/coolants and ASTM D3306 for automotive applications. It also meets glassware corrosion test ASTM D1384.

## Ready to Use

This coolant/antifreeze is ready to use as initial fill or for top off. It has been premixed 50 percent with deionized water. Cat NGENC requires no initial addition of Supplemental Coolant Additive.

## Seals Minor Leaks

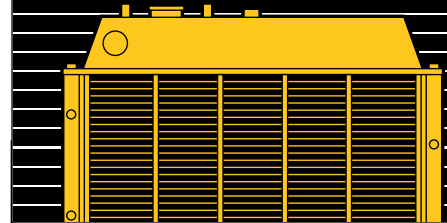
Natural gas engine installations are often in "showcase environments," in which any amount of coolant leakage is unacceptable. The silicate additives in Cat NGENC for corrosion control also seal minor leaks by combining with oxygen in the atmosphere and creating a solid silicon dioxide.

## S•O•S<sup>SM</sup> Services for early problem detection

Protect your investment with Cat S•O•S Coolant Analysis, the ultimate detection and diagnostic tool for your engines. We recommend S•O•S Level 1 Coolant Analysis according to the engine's Operation and Maintenance Manual, or Level 2 Coolant Analysis annually for all your Caterpillar equipment.

## Add Cat DEAC<sup>™</sup> Concentrate for Lower Temperature Coolant Protection

For engines operating in very cold climates Cat DEAC concentrate may be added to Cat NGENC to lower the freeze point. To obtain a freeze point of -60° C (-51° F), add one unit (liter or gallon) to each five units of Cat NGENC 50/50 premix. This provides a 60/40 mixture. Do not exceed a 60/40 mixture.



## Applications

- Optimized for Caterpillar<sup>®</sup> natural gas engines.
- Acceptable for use in most other original equipment manufacturer natural gas engines.

## Caterpillar. The difference counts.<sup>™</sup>

Cat Dealers define world-class product support. We offer you the right parts and service solutions, when and where you need them.

The Cat Dealer network of highly trained experts keeps your entire fleet up and running to maximize your equipment investments.

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# Cat NGEC Premix 50/50

## Typical Characteristics\*

Appearance	Purple
Specific gravity (50% solution), 15.5° C (ASTM D1122)	1.08
pH (50% solution) (ASTM D1287)	10.0
Reserve alkalinity (50% solution) (ASTM D1121)	5.5
Equilibrium boiling point (° C) (ASTM D1120)	109
Boiling protection, ° F (° C) with 15 psi pressure cap (ASTM D1177):	
50% solution	265 (129)
60% solution	270 (132)
Freezing protection, ° F (° C):	
50% solution	-34 (-37)
60% solution	-62 (-52)
Ash content (% wt.) (ASTM D1119)	0.60
Silicate content SiO <sub>2</sub> (ppm)	450 - 550
Commercial Grade Ethylene Glycol (% volume)	47.6
Ethylene Glycol (% wt.)	45.3
Other Glycols (% wt.)	2.5 max.
Inhibitor Additives (% volume)	2.2 - 2.4

\*All values are for the Premix 50/50 solution unless otherwise noted. The values shown are typical values and should not be used as quality control parameters to accept or reject product. Values are subject to change without notice.

## Coolant Servicing

- Do not add Supplemental Coolant Additive during initial fill.
- At the time of the Level 1 Coolant Analysis, according to the engine's Operation and Maintenance Manual, test for the need to add Supplemental Coolant Additive using a Cat Coolant Conditioner Test Kit 4C9301. Do not add Supplemental Coolant Additive without first testing the coolant Supplemental Coolant Additive level.
- Use the correct amount of Supplemental Coolant Additive determined by the test; do not overdose with Supplemental Coolant Additive.
- Check the coolant pH level according to the engine's Operation and Maintenance Manual; if it is not between 8.5 and 10.5, find the cause and correct it.
- Thoroughly<sup>1</sup> flush and refill the cooling system according to the recommended drain intervals: three years or 16,000 hours (or whichever is met first).

<sup>1</sup>If a caustic cleaner, such as Caterpillar Standard Cooling System Cleaner 6V4511 is used, the cooling system should be drained and refilled with fresh water at least three times to rid the system of all the chemicals. Operate the engine for at least 15 minutes before draining it each time. Even a small amount of the cleaner left in the system will strip the metal surfaces of the protective coolant chemicals and render it vulnerable to attack. Only about 70 percent of the coolant is removed from a cooling system when it is drained, even when all the engine block drain plugs are removed. Therefore, it is very important to drain and refill three times.

Note: The Caterpillar Fast Acting Cooling System Cleaner 4C4610 (one Quart) or 4C9609 (one Pint) is less caustic and requires less flushing, but does not remove heavy scale or deposits.

## Health and Safety

Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin, or respiratory irritation. Always observe good hygiene measures. For more information, contact us or refer to the Material Safety Data Sheet at [www.catmsds.com](http://www.catmsds.com).

## Customer benefits

**Quick, easy servicing**—Cat NGEC is premixed 50 percent with deionized water, eliminating the need to add water to concentrate.

## Uncompromised performance and life

With Cat NGEC, the following risks of improperly mixing coolant concentrate and water, which compromise the coolant performance and life, are also eliminated:

- Unacceptable use of hard water or contaminated water
- Improper ratio of concentrate to water, not thoroughly stirring the concentrate and water
- Mixing the concentrate in a dirty or contaminated container
- Pouring the concentrate and water separately into the radiator without mixing them first.

**Because Cat NGEC is premixed 50 percent with deionized water, the coolant performance and life are not compromised.**

For more information, see us today or visit our Web site at [www.CAT.com](http://www.CAT.com)

**CATERPILLAR®**