

CHAPTER 16. ANTIFREEZE

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APPENDIX A. Testing of Ethylene Glycol Antifreeze

APPENDIX B. Testing of Methanol Type Antifreeze

[**Authority:** 47 O.S. §§461 et seq.]

[**Source:** Codified 6-25-92]

SUBCHAPTER 1. GENERAL PROVISIONS

Section

- 165:16-1-1. Purpose
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165:16-1-1. Purpose

The purpose of this Chapter is to implement the provisions of 47 O.S. 1995 §§461 et seq., regarding the sale of antifreeze in the State of Oklahoma.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

165:16-1-2. Definitions

The following words and terms, when used in this Chapter, shall have the following meaning, unless the context clearly indicates otherwise:

"Antifreeze" means all substances and preparations intended for use as the cooling medium, or to be added to the cooling liquid, in the cooling system of an internal combustion engine to prevent freezing or to raise the boiling point.

"Certified" means to attest that the analysis is as represented and meets the required standards of this Chapter.

"Commission" means the Oklahoma Corporation Commission and includes its designated agents or representatives.

"Ethylene glycol antifreeze" means an antifreeze containing ethylene glycol as the major component.

"Licensee" means the name and address of the person who is selling antifreeze under a specific brand name.

"Manufacturer" means any person engaged in the manufacture of any antifreeze sold, offered for sale, used, or consumed in the State of Oklahoma.

"Methanol" means an antifreeze with an alcohol base.

"Person" means any and all persons, including any individual, firm, partnership, corporation, company, and association, whether such persons are acting as owner, bailee, or agent.

"Propylene glycol antifreeze" means an antifreeze containing propylene glycol as the major component.

"Prediluted aqueous ethylene glycol" means an antifreeze containing a 50 volume percent aqueous solution.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96; Amended at 14 Ok Reg 2494, eff 7-1-97]

165:16-1-3. Applicability

This Chapter shall apply to persons who sell, barter, use, or offer for sale or resale antifreeze of any brand or type in the State of Oklahoma.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92]

165:16-1-4. Authority of the Commission

In addition to other authority prescribed by law, the Commission shall have the authority to:

- (1) Enforce this Chapter by certification, inspections, chemical analysis, or any other appropriate methods.
- (2) Call upon and take samples of antifreeze from the stocks of any applicant for or any holder of an antifreeze permit or any other persons suspected of selling or distributing antifreeze.
- (3) Access, by legal means, all places of businesses of such persons, including buildings, vehicles, cars, and vessels used in the manufacture, transportation, sale, or storage of antifreeze during regular business hours.
- (4) Open, by legal means, any box, carton, parcel, or package containing or supposed to contain antifreeze, for the purpose of taking samples therefrom.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

SUBCHAPTER 3. APPLICATIONS AND PERMITS

Section

- 165:16-3-1. General requirements
- 165:16-3-2. Application for special permits
- 165:16-3-3. Cancellation of permit

165:16-3-1. General requirements

Before any antifreeze can be bartered, sold, used and/or offered for sale or resale or held with intent to sell, within the State of Oklahoma, a permit, bearing an official permit number of the Commission shall be obtained from the Fuel Inspection Department of the Commission.

(1) Application for antifreeze permits shall be made on forms supplied by the Fuel Inspection Department and a certified analysis of the antifreeze covering the specification and standards as set out in 165:16-5-1, 165:16-5-2, and 165:16-3-2.

The applicant shall further certify that the antifreeze is not misbranded and is properly labeled as set out in 165:16-7-2 and such certification shall be submitted with each application.

(2) The initial application of the seller, manufacturer, packer, or distributor shall include the payment of a fee of One Hundred Dollars (\$100.00) for each brand of antifreeze submitted.

(3) If said antifreeze meets the specifications and standards as set out in 165:16-5-1, 165:16-5-2, 165:16-3-2, and 165:16-7-2, an annual permit shall be issued to the applicant authorizing the sale of such antifreeze for the fiscal year, July 1 to June 30.

(4) On approval of an application for renewal of a permit, the fee shall not exceed One Hundred Dollars (\$100.00) per annum.

(5) The original permit and/or renewal issued by the Commission shall bear the same permit number.

(6) No permits shall be transferable.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

165:16-3-2. Application for special permits

(a) Application may be made for an order establishing standards for any antifreeze product which does not fall within any classification established by this Chapter. The application shall be accompanied by a certified analysis setting out the chemical composition of the product and test data, including boiling point, pH, reserve alkalinity, and freezing point as measured by applicable ASTM or other appropriate methods.

(b) After notice as prescribed by the Commission and public hearing, the Commission shall enter its order prescribing appropriate minimum standards applicable to the product and authorizing issuance of permit for the product pursuant to 165:16-3-1.

(c) A permit issued pursuant to such an order may be renewed annually, without further hearing, as provided in 165:16-3-1.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

165:16-3-3. Cancellation of permit

If the Commission finds after the issuance of a permit that the antifreeze product has been materially altered without written permission of the Commission or a change has been made in the name, brand, or trademark under which the antifreeze is sold or the applicant has violated any provision of this Chapter, the Commission shall notify the applicant and the permit shall be cancelled.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92]

SUBCHAPTER 5. TESTING OF ANTIFREEZE

Section

- 165:16-5-1. Testing of ethylene glycol antifreeze
- 165:16-5-2. Testing of methanol type antifreeze
- 165:16-5-3. Testing of prediluted aqueous ethylene glycol antifreeze
- 165:16-5-4. Testing of propylene glycol antifreeze

165:16-5-1. Testing of ethylene glycol antifreeze

The American Society for Testing and Materials (ASTM) standards shall be used to make the following tests of antifreeze.

(1) **Boiling point test.** The boiling point of an antifreeze shall be determined by the ASTM designation D-1120 test. The boiling point of a concentrated antifreeze shall not be below 311° F or 155° C. When added to the cooling system of a motor vehicle, at atmospheric pressure, an antifreeze shall increase the boiling point to a degree not less than the following:

- (A) 50% antifreeze: 226° F or 108° C
- (B) 40% antifreeze: 221° F or 105° C
- (C) 33 1/3% antifreeze: 219° F or 104° C
- (D) 20% antifreeze: 214° F or 101° C

(2) **pH test.** The pH of an antifreeze shall be determined by the ASTM designation D-1287 test. The pH of an antifreeze shall be run by using a solution composed of 50% concentrated antifreeze and 50% water, by volume. The pH of this antifreeze solution shall not be below 7.5.

(3) **Corrosion inhibition test.** The reserve alkalinity of antifreeze as determined by ASTM D-1121 shall be reported. The corrosion inhibitive properties of antifreeze shall be determined by ASTM D-1384 Test Method. The average weight loss of each metal coupon shall not exceed the maximums stated as follows: copper 10 mg, solder 30 mg, brass 10 mg, steel 10 mg, cast iron 10 mg, and aluminum 30 mg.

(4) **Freezing point test.** The freezing point of antifreeze shall be determined by the ASTM designation D-1177 test. The freezing points of the various water antifreeze solutions shall be such as to protect according to the chart in Appendix A of this Chapter.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96; Amended at 14 Ok Reg 2494, eff 7-1-97]

165:16-5-2. Testing of methanol type antifreeze

The American Society for Testing and Materials (ASTM) standards shall be used to make the following tests of antifreeze.

(1) **Boiling point test.** The boiling point of an antifreeze shall be determined by the ASTM designation D-1120 test. The boiling point of a concentrated antifreeze when added to the cooling system of a motor vehicle at atmospheric pressure shall not be below 133° F or 56° C.

(2) **pH test.** The pH of an antifreeze shall be determined by the ASTM designation D-1287 test. The pH of an antifreeze shall not be below 7.5. The pH of an antifreeze shall be run by using a solution composed of 50% concentrated antifreeze and 50% water, by volume.

(3) **Reserve alkalinity test.** The reserve alkalinity of an antifreeze shall be determined by the ASTM designation D-1121 test. The reserve alkalinity shall not be below 10.0.

(4) **Freezing point test.** The freezing point of an antifreeze shall be determined by the ASTM designation D-1177 test. The freezing point of the various water antifreeze solutions shall be such as to protect according to the chart in Appendix B of this Chapter.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96; Amended at 14 Ok Reg 2494, eff 7-1-97]

165:16-5-3. Testing of prediluted aqueous ethylene glycol antifreeze

The American Society for Testing and Materials (ASTM) standards shall be used to make the following tests of antifreeze.

(1) **Boiling point test.** The boiling point of an antifreeze shall be determined by the ASTM D-1120 test. The boiling point of the prediluted coolant as packaged shall be at least 226° F or 108° C.

(2) **pH test.** The pH of an antifreeze shall be determined by the ASTM designation D-1287 test. The pH of an antifreeze shall be run by using a sample of the prediluted coolant as packaged. The pH of this antifreeze solution shall not be below 7.5.

(3) **Corrosion inhibition test.** The reserve alkalinity of antifreeze as determined by ASTM D-1121 shall be reported. The corrosion inhibitive properties of antifreeze shall be determined by ASTM D-1384 Test Method. The average weight loss of each metal coupon shall not exceed the maximums stated as follows: copper 10 mg, solder 30 mg, brass 10 mg, steel 10 mg, cast iron 10 mg, and aluminum 30 mg.

(4) **Freezing point test.** The freezing point of antifreeze shall be determined by the ASTM designation D-1177 test. The freezing point of the concentrated antifreeze solution shall be at least to -34° F or -37° C.

[**Source:** Added at 14 Ok Reg 2494, eff 7-1-97]

165:16-5-4. Testing of propylene glycol antifreeze

The American Society for Testing and Materials (ASTM) standards shall be used to make the following tests of antifreeze.

(1) **Boiling point test.** The boiling point of an antifreeze shall be determined by the ASTM designation D-1120 test. The boiling point of a concentrated antifreeze shall not be below 305° F or 152° C. When added to the cooling system of a motor vehicle, a 50% antifreeze solution at atmospheric pressure shall increase the boiling point to a degree not less than 219° F or 104° C.

(2) **pH test.** The pH of an antifreeze shall be determined by the ASTM designation D-1287 test. The pH of an antifreeze shall be run by using a solution composed of 50% concentrated antifreeze and 50% distilled water, by volume. The pH of this antifreeze solution shall not be below 7.5.

(3) **Corrosion inhibition test.** The reserve alkalinity of antifreeze as determined by ASTM D-1121 shall be reported. The corrosion inhibitive properties of antifreeze shall be determined by ASTM D-1384 Test Method. The average weight loss of each metal coupon shall not exceed the maximums stated as follows: copper 10 mg, solder 30 mg, brass 10 mg, steel 10 mg, cast iron 10 mg, and aluminum 30 mg.

(4) **Freezing point test.** The freezing point of antifreeze shall be determined by the ASTM designation D-1177 test. The freezing points of a 50% concentrated antifreeze and 50% distilled water solution shall not be above -26° F or -32° C.

[**Source:** Added at 14 Ok Reg 2494, eff 7-1-97]

SUBCHAPTER 7. ADULTERATION AND MISBRANDING

Section

165:16-7-1. Adulteration

165:16-7-2. Misbranding and labeling

165:16-7-1. Adulteration

Any antifreeze submitted to the Fuel Inspection Department for permit approval and testing shall be deemed to be adulterated if the certified analysis or other testing indicates:

(1) It consists in whole or in part of any substance which will render it injurious to the cooling system of an internal combustion engine or will make the operation of the engine dangerous to the user.

(2) Its strength, quality, or purity falls below the professed standard of strength, quality, or purity under which it is sold.

(3) It is a product intended to be used without further dilution and does not provide freezing point protection to -34° Fahrenheit.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

165:16-7-2. Misbranding and labeling

Any antifreeze submitted to the Fuel Inspection Department for permit approval shall be deemed to be misbranded if:

- (1) Labeling is false or misleading in any particular.
- (2) In package form it does not bear a label containing the name and place of business of the manufacturer, packer, seller or distributor, and an accurate statement of the quantity of contents in terms of weight or volume and these facts are not stated plainly and correctly on the outside.
- (3) The product is to be diluted with another substance for use and does not bear on the label or in an accompanying instruction sheet, folder, or booklet a statement or chart showing appropriate amounts of each substance to be used to provide protection from freezing at various degrees of temperature down to at least thirty degrees (30°) below zero Fahrenheit.
- (4) The product is intended to be used without further dilution and the freezing point is not stated on the label and the front and back labels do not bear the words "Ready to Use" in minimum one quarter (1/4) inch high letters.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

SUBCHAPTER 9. ADVERTISING

Section

165:16-9-1. Advertising

165:16-9-1. Advertising

No advertising literature relating to any antifreeze sold, or to be sold, in the State of Oklahoma shall contain any statement that the antifreeze advertised for sale has been approved by the Commission unless a current permit has been issued to the wholesaler, manufacturer, packer, or distributor in which event such statement, together with the permit number, may be contained in any labeling and advertising literature where such brand or trademark or antifreeze is being advertised for sale.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92; Amended at 13 Ok Reg 2409, eff 7-1-96]

SUBCHAPTER 11. PENALTY FOR VIOLATION

Section

165:16-11-1. Penalty

165:16-11-1. Penalty

(a) Any person who violates or fails to comply with the provisions of this Chapter or the laws of the State, or any person who aids and abets in the violation thereof, shall, in addition to the penalties provided by law, be deemed guilty of contempt of order of the Commission and be subject to a fine not to exceed \$500.00 for each offense.

(b) Each day such violation occurs shall constitute a separate offense.

[**Source:** Added at 9 Ok Reg 2333, eff 6-25-92]

APPENDIX A. TESTING OF ETHYLENE GLYCOL ANTIFREEZE

COOLING SYSTEM
CAPACITY IN
QUARTS

QUARTS OF ANTIFREEZE REQUIRED
(Temperature in degrees Fahrenheit)

	1	2	3	4	5	6	7	8	9	10
8	23°	11°	-6°	-34°	-65°					
9	24°	14°	0°	-21°	-50°					
10	25°	16°	4°	-12°	-34°	-62°				
11	26°	18°	8°	-6°	-23°	-47°				
12	27°	19°	10°	0°	-15°	-34°	-56°			
13		21°	13°	3°	-9°	-25°	-45°			
14			15°	6°	-5°	-18°	-34°	-54°		
15			16°	8°	0°	-12°	-26°	-42°		
16			17°	10°	2°	-8°	-19°	-34°	-50°	
17			18°	12°	5°	-4°	-14°	-27°	-42°	-62°
18			19°	14°	7°	-0°	-10°	-21°	-34°	-47°
19			20°	15°	9°	2°	-7°	-16°	-26°	-42°
20			21°	16°	10°	4°	-3	-12°	-21°	-34°

[Source: Added at 13 Ok Reg 2409, eff 7-1-96]

APPENDIX B. TESTING OF METHANOL TYPE ANTIFREEZE

COOLING SYSTEM
CAPACITY IN QUARTS OF
METHANOL ANTIFREEZE REQUIRED
QUARTS
(Temperature in degrees Fahrenheit)

	1	2	3	4	5	6	7	8	9	10
10	23°	11°	-4°	-24°	-45°					
11	24°	14°	1°	-17°	-35°					
12		16°	5°	-10°	-27°	-45°				
13		18°	7°	-5°	-20°	-37°				
14		19°	10°	-1°	-15°	-29°	-45°			
15		20°	11°	2°	-10°	-24°	-39°			
16		21°	13°	5°	-6°	-18°	-31°	-45°		
17		22°	15°	7°	-30°	-14°	-26°	-39°		
18		22°	16°	9°	0°	-10°	-21°	-33°	-45°	
19		23°	17°	10°	2°	-7°	-17°	-28°	-40°	
20		23°	18°	11°	5°	-4°	-13°	-24°	-34°	-45°

[**Source:** Added at 13 Ok Reg 2409, eff 7-1-96]