

TITLE 4 DEPARTMENT OF AGRICULTURE

SUBTITLE 7 DIVISION OF MEASUREMENT STANDARDS

CHAPTER 86

BRAKE FLUIDS, COOLANTS, PETROLEUM PRODUCTS,  
AND AFTER-MARKET ADDITIVES

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Historical note: This chapter is based substantially upon Section 9.600 of Rule 9.000/486-71, entitled "Petroleum and Petroleum Products," of the Division of Measurement Standards. [Eff. 1/27/71; am 9/6/79; R 12/26/81]

§4-86-1 Severability. If any provision of this chapter is held invalid, the invalidity shall not affect the remainder of this chapter and, to this end, any of the provisions of this chapter are severable. [Eff. 12/26/81] (Auth: HRS §486-9) (Imp: HRS §486-9)

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§4-86-2 Violation. Any person omitting the required acts or committing the proscribed acts, or delivering a product not in compliance with specifications, or through a device not in compliance with the requirements of this chapter shall be in violation of this chapter and subject to the provisions of chapter 486 or 486D, Hawaii Revised Statutes. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-21, 486-9, 486-16, 486-27, 486-30, 486D-5, 486D-6)

§4-86-3 Applicability. This chapter applies to brake fluids, coolants, petroleum products, additives, and their specifications, and to persons or activities involving these products. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-2, 486-11, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26, 486-26.5, 486-27, 486D-2, 486D-3, 486D-7)

§4-86-4 Definitions. As used in this chapter,

"Actual density" or "relative density" means the observed density or observed relative density, respectively, determined at a product temperature of sixty degrees fahrenheit or which has been corrected to sixty degrees fahrenheit, and is expressed by the relationship:  $\text{relative density sixty/sixty degrees fahrenheit equal one hundred and forty-one and five tenths divided by API gravity at sixty degrees, minus one hundred and thirty-one and five tenths}$  ( $\text{Relative density } 60/60^{\circ}\text{F} = 141.5/^{\circ}\text{API} - 131.5$ );

"After-market additive" means a commodity marketed for addition, by the consumer or a person other than the manufacturer, to a liquid petroleum product for purposes of enhancing the characteristics of the liquid petroleum product or its performance, as in an internal combustion engine;

"API" means american petroleum institute;

"API gravity" means the relationship expressed by  $\text{degrees API equal one hundred and forty-one and five tenths divided by specific gravity at sixty/sixty degrees fahrenheit, minus one hundred and thirty-one and five tenths}$ , and is abbreviated  $^{\circ}\text{API}$ . By definition, it reflects a special gravity at sixty degrees fahrenheit ( $^{\circ}\text{API} = 141.5/\text{S.G. } 60/60^{\circ} - 131.5$ );

"ASTM" means american society for testing and materials;

"Base gasoline" means the gasoline component of a gasohol product;

"Degrees API" means API gravity, which is a special density scale adopted in 1921 by the national bureau of standards in lieu of the Baumé scale;

"Density" means the mass per unit volume;

"Gasohol" means a fuel comprised of a blend of base gasoline and ethanol;

"Gravity" means API gravity;

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"Hawaii standard petroleum measurement tables" means the following tables, as listed in the manual of petroleum measurement standards D1250, as published by the ASTM in the first edition, August 1980:

Table 5A - Generalized crude oils correction of observed API gravity to API gravity at sixty degrees;

Table 5B - Generalized products correction of observed API gravity to API gravity at sixty degrees;

Table 6A - Generalized crude oils correction of volume to sixty degrees fahrenheit against API gravity at sixty degrees;

Table 6B - Generalized products correction of volume to sixty degrees fahrenheit against API gravity at sixty degrees;

Table 23A - Generalized crude oils correction of observed relative density to relative density sixty/sixty degrees fahrenheit;

Table 23B - Generalized products correction of observed relative density to relative density sixty/sixty degrees fahrenheit;

Table 24A - Generalized crude oils correction of volume to sixty degrees fahrenheit against relative density sixty/sixty degrees fahrenheit;

Table 24B - Generalized products correction of volume to sixty degrees fahrenheit against relative density sixty/sixty degrees fahrenheit;

Table 53A - Generalized crude oils correction of observed density to density at fifteen degrees celsius;

Table 53B - Generalized products correction of observed density to density at fifteen degrees celsius;

Table 54A - Generalized crude oils correction of volume to fifteen degrees celsius against density at fifteen degrees celsius;

Table 54B - Generalized products correction of volume to fifteen degrees celsius against density at fifteen degrees celsius;

and the following tables, as listed in the petroleum measurement tables D1250, as published by the ASTM in the eleventh edition, July 1974:

Table 2 - Temperature conversions;

Table 8 - Pounds per U. S. gallon at sixty degrees fahrenheit and U. S. gallons at sixty degrees fahrenheit;

Table 24 - Reduction of volume to sixty degrees fahrenheit against specific gravity sixty/sixty degrees fahrenheit;

"LPG" means liquefied petroleum gas in the liquid state;

"Market" or "marketing" means the activities and actions leading to the sale or potential sale of a commodity. It includes all aspects of trade and commerce, labeling, merchandising, mercantiling, and selling the net measure of a commodity;

"Observed density" or "observed relative density" means the value observed on the scale of a hydrometer when the scale indication is read at the point where the

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principal surface of the liquid would intercept the stem of the immersed hydrometer if there were no meniscus, the principal surface being read as a flat plane rather than an ellipse. It is an incorrect indication of the density of the product unless the liquid temperature is, or is corrected to, sixty degrees fahrenheit. (See "actual density");

"Petroleum product" means automotive gasoline, aviation gasoline, crude oil, diesel fuel, fuel oil, hydrocarbons, jet fuels, kerosene, liquefied petroleum gas both liquid and vapor, lubricating oil, synthetics, solvents, turbine fuel, or any other oil or distillate or blend of any of the above with alcohol or any other product that may normally be considered a petroleum product or which serves the end use of a petroleum product including manufactured gas, natural gas, or synthetic natural gas, blends, or substitutes;

"Relative density" has the meaning of actual density;

"SAE" means the society of automotive engineers;

"SAE number" means one of a series of formally adopted call numbers established by the society of automotive engineers to identify specific products by their chemical composition;

"Sealed" or "in seal" means a measurement standard, licensed for current use, which has been approved as to type by the director, and tested by the director or a registered service person or agency for correctness and found to be in compliance and to which has been affixed a seal attesting to such correctness and compliance. A device, which has been retrofitted as defined in §4-102-4, title 4, Administrative Rules, or remanufactured subsequent to type approval may, when any such action is undertaken, lose its type approval. A device, which has been relocated or exchanged subsequent to sealing and which by design is not considered portable shall, when any such action is undertaken, lose its seal;

"Sixty/sixty°F" is a dimensionless number, expressing the ratio of the weight of a specific volume of petroleum product, the temperature of which is sixty degrees fahrenheit, to the exact same volume of water, the temperature of which is sixty degrees fahrenheit. It is abbreviated 60/60°F;

"Specific gravity 60/60°F" means the ratio of the weight of a given volume of oil at sixty degrees fahrenheit to the same volume of water at sixty degrees fahrenheit, both weights being corrected for the buoyancy of air, and is abbreviated S.G.60/60°F; and

"Viscosity" means the resistance offered by a fluid to the relative motion of its particles.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-2, 486-9, 486-11, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26.5, 486-27, 486D-3, 486D-4, 486D-5, 486D-7)

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§4-86-5 Registration required. (a) No person shall market a brake fluid, coolant, petroleum product, or after-market additive until such product has first been registered with the director on MSP 2-306, as cited in chapter 76, title 4, Administrative Rules.

- (1) A registration shall be renewed annually, by February 28, for any product which has been reformulated or changed;
- (2) A registration which does not reflect current formulation shall be invalid; and
- (3) Failure of the registrant to notify the director of a reformulation or change is prohibited.

(b) Marketing a brake fluid, coolant, or petroleum product, or any after-market additive for any of these products, which has not first been registered with the director or which falls below or fails to comply with the standards established herein or the formulation represented on the registration for a product, is prohibited and shall subject the product to "off-sale" or "remove from sale" order.

(c) Data submitted in application for registration, or that may be requested of the registrant by the director as a condition precedent to registration, shall become a part of the registration file, deemed privileged, and shall not be revealed without a court order. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-9, 486D-5)

§4-86-6 Specialty additive claims, substantiation. The making of a general or specific claim on the label of a specialty or after-market additive, marketed in the State, shall be substantiated and documented by the manufacturer or distributor, upon written request of the director.

- (1) Failure to support the labeled claim by certified documentation from a recognized testing laboratory may result in the product being ordered "off-sale" until the documentation is received.
- (2) In the absence of any documentation supporting the labeled claims, tests may be conducted by the manufacturer or distributor in accordance with established procedures of the environmental protection agency to verify the label claims. The results of the tests shall be submitted to the director within one hundred and eighty-one days of receipt of the director's request.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-9, 486-13, 486-19, 486-20, 486-22, 486-23, 486-24, 486-26.5, 486D-5)

§4-86-7 Compliance with advertising or labeled claims; required. Any product subject to this chapter shall satisfactorily perform as advertised or claimed on its label. If it is the intent of the manufacturer or distributor to limit or otherwise qualify the product's use, it's labeling and advertising shall reflect this fact. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-2, 486-9, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26.5, 486D-5)

§4-86-8 Disposal of noncomplying products. The director may dispose of any product subject to this chapter which fails to meet the requirements herein and which, after notification in writing, the manufacturer or distributor has failed to effect remedial action. [Eff. 12/26/81] (Auth: HRS §§486-2, 486-9, 486D-5) (Imp: HRS §§486-9, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-26.5, 486D-3, 486D-4, 486D-5)

§4-86-9 Misrepresentation prohibited. Misrepresentation in any manner is prohibited. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-2, 486-9, 486-13, 486-14, 486-19, 486-20, 486-21, 486-22, 486-23, 486-24, 486-25, 486-26.5, 486D-3, 486D-5, 486D-7)

§4-86-10 Specifications for petroleum products. The following specifications shall apply to petroleum products:

- (1) Automotive gasoline shall conform to ASTM D 439-79, class C volatility only, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (2) Aviation gasoline shall conform to ASTM D 910-79, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (3) Diesel fuel oils shall conform to ASTM D 975-78, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (4) Fuel oils shall conform to ASTM D 396-80, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (5) Hydrocarbon dry-cleaning solvent shall conform to ASTM D 484-71, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (6) Kerosene shall conform to ASTM D 3699-78, as published in 1980 annual book of ASTM standards, part 25, 1980 edition;

- (7) Jet aviation turbine fuel shall conform to ASTM D 1655-80, as published in 1980 annual book of ASTM standards, part 23, 1980 edition;
- (8) Liquefied petroleum gas shall conform to ASTM D 1835-76, as published in 1980 annual book of ASTM standards, part 24, 1980 edition; and
- (9) Motor fuel gasohol shall contain not less than ten percent volume of denatured ethanol in a base gasoline. The effect of adding ten percent volume of ethanol to a base gasoline will increase the initial boiling point, the midpoint, and usually the end point, as well as increase the Reid vapor pressure, alter the vapor/liquid ratio, and enhance the octane index of the base gasoline. In the absence of a gasohol standard, the vapor lock tendencies for gasohol shall approximate that of a class C volatility gasoline.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-2, 486-9, 486-11, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26, 486-26.5, 486-27, 486D-3, 486D-5)

§4-86-11 Brake fluid. The following appropriate specification shall apply to brake fluid, its containerization, labeling, handling, and dispensing:

- (1) Motor vehicle brake fluid shall conform to SAE J 1703f, as published in SAE handbook, part 2, 1979 edition;
- (2) Motor vehicle brake fluid container compatibility shall conform to SAE J 75, as published in SAE handbook, part 2, 1979 edition;
- (3) Labeling of motor vehicle brake fluid containers shall conform to SAE J 988, as published in SAE handbook, part 2, 1979 edition; and
- (4) Handling and dispensing of motor vehicle brake fluid shall conform to SAE J 76, as published in SAE handbook part 2, 1979 edition.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-2, 486-9, 486-11, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26, 486-26.5, 486-27, 486D-3, 486D-5)

§4-86-12 Automotive antifreeze coolants and coolants. The following specifications shall apply to automotive antifreeze coolants and automotive coolants:

Automotive antifreeze coolants and automotive coolants shall be of the ethylene-glycol type and shall conform to SAE J 1034, as published in SAE handbook, part 1, 1979 edition.

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- 1) The minimum concentration of ethylene-glycol permitted in an automotive coolant offered for retail sale in the State shall be at least ninety percent by volume; and
- (2) The label of the container of an automotive antifreeze coolant and automotive coolant shall disclose the minimum ethylene-glycol content, as a volume percent of the coolant.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-2, 486-9, 486-11, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26, 486-26.5, 486-27, 486D-3, 486D-5)

§4-86-13 Lubricants. The following specifications shall apply to lubricants:

- (1) Engine oil performance and engine service classification shall conform to SAE J 1836, as published in SAE handbook, part 1, 1979 edition;
- (2) Engine oil viscosity classification shall conform to SAE J 300d, as published in SAE J 300d, as published in SAE handbook, part 1, 1979 edition;
- (3) Engine oil tests shall conform to SAE J 304c, as published in SAE handbook, part 1, 1979 edition;
- (4) Physical and chemical properties of engine oils shall conform to SAE J 357a, as published in SAE handbook, part 1, 1979 edition;
- (5) Automotive lubricating greases shall conform to SAE J 310a, as published in SAE handbook, part 1, 1979 edition;
- (6) Automatic transmission fluid shall conform to SAE J 311b, as published in SAE handbook, part 1, 1979 edition; and
- (7) Axle and manual transmission lubricants shall conform to SAE J 308c, as published in SAE handbook, part 1, 1979.

[Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-1, 486-1, 486-9, 486-11, 486-13, 486-14, 486-15, 486-18, 486-19, 486-20, 486-22, 486-23, 486-24, 486-25, 486-26, 486-26.5, 486-27, 486D-3, 486D-5)

§4-86-14 Hawaii standard petroleum measurement tables. (a) The density and volume of petroleum products shall be determined, verified, and delivered in accord with the appropriate Hawaii standard petroleum measurement table.

(b) It shall be the responsibility of a petroleum product supplier, as relates to the temperature and density of petroleum products marketed intrastate to constantly monitor and display these characteristics and conditions for inclusion by the measuremaster on all certificates of measure, as cited in chapter 88, title 4,

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Administrative Rules, at all rack meter loading facilities. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-9, 486D-3, 486D-4, 486D-5)

§4-86-16 Stay or delay of requirements. In addition to the provisions of section 486D-5(c), Hawaii Revised Statutes, the director may, for reasons of supply, stay, postpone, delay the effective date, or set aside any requirement of this chapter, under emergency controlled conditions, for a period not to exceed one hundred and eighty days. [Eff. 12/26/81] (Auth: HRS §§486-9, 486D-5) (Imp: HRS §§486-9, 486D-3, 486D-5)