

# Clearinghouse Rule 96-191

STATE OF WISCONSIN

DEPARTMENT OF AGRICULTURE,  
TRADE AND CONSUMER PROTECTION

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Clearinghouse Rule  
No. 96-191

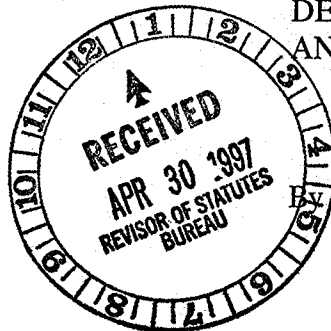
## CERTIFICATION:

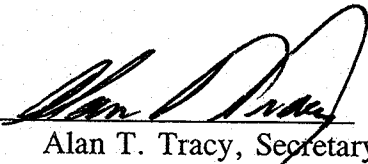
I, Alan T. Tracy, Secretary, Department of Agriculture, Trade and Consumer Protection, State of Wisconsin, and custodian of the official records of said Department, do hereby certify that the attached rulemaking order creating ch. ATCP 139.04(11), Wisconsin Administrative Code, relating to prohibiting the sale of flammable substances containing butane, propane, mixtures of butane and propane, or other gaseous hydrocarbons for use as refrigerants in mobile air conditioners, was signed and adopted by the Department on April 30, 1997.

I further certify that I have compared the attached copy to the original on file in the Department, and that the attached copy is a complete and accurate copy of the original.

Signed and sealed this 30th day of April, 1997.

STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE, TRADE  
AND CONSUMER PROTECTION.



  
Alan T. Tracy, Secretary

7-1-97

**ORDER OF THE STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION  
ADOPTING RULES**

1 The state of Wisconsin department of agriculture, trade and consumer protection hereby  
2 adopts the following order to create ATCP 139.04(11), relating to prohibiting the sale of  
3 flammable substances containing butane, propane, mixtures of butane and propane, or other  
4 gaseous hydrocarbons for use as refrigerants in mobile air conditioners.

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Analysis Prepared by the Department of Agriculture,  
Trade and Consumer Protection

Statutory authority: ss. 93.07(1) and 100.37(2), Stats.  
Statutes interpreted: s. 100.37, Stats.

Hazardous Substances Law

The Department of Agriculture, Trade and Consumer Protection ("department") regulates the sale and labeling of hazardous substances under s. 100.37, Stats. Section 100.37(1), Stats., defines a hazardous substance to include any substance or mixture of substances which is flammable or combustible "if such substance or mixture of substances may cause substantial personal injury or substantial illness during or as a proximate result of any customary or reasonably foreseeable handling or use."

The hazardous substances law authorizes the department to identify "hazardous substances" by rule. The department may regulate "hazardous substances" in various ways. The department may, by rule:

- Require precautionary labeling of hazardous substances.
- Restrict the use of hazardous ingredients.
- Prescribe package safety standards.
- Ban the sale of a hazardous substance if less restrictive alternatives are inadequate to protect public health and safety.

Current rules under ch. ATCP 139, Wis. Adm. Code, spell out packaging and labeling requirements for hazardous substances. Current rules also prohibit the sale of certain hazardous substances if there is a serious hazard that cannot be adequately addressed by other means.

## Contents of New Rule

This rule bans and prohibits the sale of flammable gaseous hydrocarbons when used or intended for use as refrigerants in motor vehicles whose mobile air conditioners were not designed and manufactured to use flammable refrigerants. It does so by listing them among the "hazardous substances" that are prohibited under current rules.

## Public Health and Safety Risks Cited

Motor vehicles and mobile air conditioners are not currently designed to use flammable refrigerants, or to prevent the safety hazards associated with those substances. The Society of Automotive Engineers has issued a standard which states that refrigerants used in mobile air conditioning systems must be of low toxicity, and must be nonflammable and nonexplosive.

Testing of one refrigerant product intended for use in motor vehicle air conditioning systems marketed in Wisconsin showed that it was composed of propane, butane and isobutane. Standard industry test procedures for flammable substances classify these particular substances as "highly flammable."

Current motor vehicle air conditioning systems are designed to use one only two refrigerants - CFC 12 or HFC-134a. Neither of these approved refrigerants is flammable. Refrigerants in mobile air conditioning systems commonly leak into engine compartments and passenger compartments of motor vehicles. Potential leak sources include evaporators, flexible hoses, and compressor shaft seals. Hydrocarbon-based refrigerants also pose a greater likelihood of leakage because of higher pressures which these substances exhibit within a motor vehicle air conditioning system. Hydrocarbon refrigerants, which are heavier than air, will tend to accumulate in low or confined spaces of a motor vehicle when there is leakage, and are highly flammable at low concentrations. Fires or explosions resulting from the ignition of leaked flammable refrigerant may cause serious bodily injury or death to motor vehicle passengers.

Independent field demonstrations have clearly identified the risk of fires and explosions from the ignition of leaked flammable refrigerant into the engine and passenger compartments of motor vehicles. Automotive technicians are also at risk when unknowingly servicing mobile air conditioning systems containing flammable refrigerants.

The department finds that the risk to public health and safety and the threat of serious bodily injury or death to motor vehicle passengers cannot be adequately addressed by product packaging or labeling. The use of flammable hydrocarbon-based products in motor vehicle air conditioning systems is inherently hazardous because of the inability of current system designs to isolate refrigerant flow loops from electrical systems and other ignition sources in the event of a leak. That hazard will not be materially altered by mere packaging or labeling. There are few if any protective actions which a customer or technician can take to

reduce the hazards associated with use of these products in motor vehicle air conditioning systems. At this time, the public health and safety can only be protected by keeping these products out of the channels of commerce in this state.

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**RULEMAKING ORDER**

1           **SECTION 1.** ATCP 139.04(11) is created to read:  
2           ATCP 139.04(11) Flammable substances containing butane, propane, mixtures of  
3 butane and propane, or other gaseous hydrocarbons when used or intended for use as  
4 refrigerants in motor vehicles whose mobile air conditioners, as defined under s.  
5 100.45(1)(b), Stats, were not designed and manufactured to use flammable refrigerants.

6           **SECTION 2.** The rule contained in this order shall take effect on the first day of the  
7 month following publication in the Wisconsin administrative register, as provided under s.  
8 227.22(2) (intro), Stats.

Dated this 30th day of April, 1997.

STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE,  
TRADE AND CONSUMER PROTECTION

  
Alan T. Tracy, Secretary

