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FISCAL IMPACT REPORT

SPONSOR Romero DATE TYPED 2/11/04 HB _____

SHORT TITLE Bittering Agent in Antifreeze SB 50/aSfI#1

ANALYST Dunbar

APPROPRIATION

Appropriation Contained		Estimated Additional Impact		Recurring or Non-Rec	Fund Affected
FY04	FY05	FY04	FY05		
			\$100.0 See Narrative		General Fund

(Parenthesis () Indicate Expenditure Decreases)

SOURCES OF INFORMATION

LFC Files

Responses Received From

- Department of Health (DOH)
- NM Department of Agriculture (NMDA)
- NM Environment Department (NMED)

SUMMARY

Synopsis of SfI#1 Amendment

Senate Floor Amendment 1 to SB50 inserts language that allows the manufacture the discretion to include the bittering agent denatonium benzoate in the antifreeze product or make an additive available to include in the product. In some cases, the consumer would be required to purchase the product and the additive to include in the product. This may cause some confusion among consumers. The intent of the bill appears to have been compromised because as many individuals will not purchase the additive and the exposure to hazard situations will continue to exist. Reference is made to “Significant Issues” and “Other Substantive Issues” below.

In the amendment, it is not clear if the manufacturer would even be required to supply the additive or if the bittering agent would be available as an additive for 55-gallon drums (or larger).

Synopsis of Original Bill

Senate Bill 50 would require the inclusion of a bittering agent (denatonium benzoate) in antifreeze sold in New Mexico that contains over 10% ethylene glycol. Manufacturers who follow the specified guidelines would not be held liable for unintentional poisonings. The bill exempts the sale of motor vehicles that contain coolant or antifreeze and also wholesale containers of antifreeze that are 55 gallons or more from having to include this bittering agent.

Significant Issues

Ethylene glycol in antifreeze has been a known health hazard for both animals and humans. There are no exact figures on how many pet dogs and cats die every year from ingesting antifreeze that has been left out after motor vehicle coolant replacement or from a leaking radiator. The sweet taste is attractive to animals and ingesting only a small amount can be lethal. Veterinarians have had to treat animals for this problem, costing thousands of dollars.

Human poisonings also occur fairly frequently and sometimes with dire consequences. The New Mexico Poison Control Center recorded 73 cases of ethylene glycol poisoning in people in New Mexico from July 2002 through June 2003 with 51 of them being recorded as due to unintentional exposure. Thirty-eight of these people had to receive treatment in the hospital and two deaths were recorded as being due directly to ethylene glycol ingestion. DOH says that including a bittering agent in antifreeze to make the product unpalatable should significantly reduce animal exposures and unintentional human exposures.

FISCAL IMPLICATIONS

The bill does not contain an appropriation.

However, if a state agency is going to be responsible for testing for the presence of this (these) compounds, instrumentation must be acquired to perform the analyses. Oregon and California have researched this problem, and have concluded that use of a high performance liquid chromatograph, mass spectrometer is the best, if not only, satisfactory way to test for denatonium benzoate at this level. The approximate cost for one of these units is \$100,000.

ADMINISTRATIVE IMPLICATIONS

The bill does not identify the state agency responsible for testing the product. This agency will acquire additional duties.

RELATIONSHIP

The NM Department of Agriculture notes that the Petroleum Products Standards Act, Chapter 57, Article 19, Sections 25 through 37 NMSA 1978, establishes standards for petroleum products in New Mexico. By definition, antifreeze is considered a petroleum product and is therefore regulated under the act. Section 57-19-29 Quality Standards, requires petroleum products to meet the most current specifications established by the American Society for Testing and Materials (ASTM), therefore antifreeze must comply with the requirements set forth in ASTM D 3306, Standard Specification for Ethylene Glycol base Engine Coolant for Automobile and Light Duty Service.

TECHNICAL ISSUES

There is no penalty for use of the old product. Also, the bill does not identify a responsible agency for testing for the presence of added compounds. Would this be the NM Department of Agriculture or the Environment Department?

When requiring the addition of a compound to any product, the risk is always present that it will change other specifications of the substance.

It is highly unlikely that any compound introduced at the exceedingly small level of 30 parts per million, would negatively affect any other antifreeze specification, however only antifreeze manufacturers can make the determination as to what level of what compound could affect other specifications.

NMDA recommends inserting language in the bill, which clearly states the addition of any bittering agent shall not change the specifications for ethylene glycol base antifreeze as established in the most current addition of ASTM D 3306, Standard Specification for Ethylene Glycol base Engine Coolant for Automobile and Light Duty Service. This will allow for the introduction of sufficient bittering agents to make the product unpalatable, without changing the performance specifications of the product.

Instrumentation that may be suitable for analyzing denatonium benzoate may not be suitable for other suitable bittering compounds.

The draft law also allows for "another aversive agent" to be used if it meets or exceeds the degree of aversion in test subjects obtained by utilizing the formulation of thirty parts per million of denatonium benzoate. Who will make that determination and what will it be based on?

OTHER SUBSTANTIVE ISSUES

Significant areas to which the bill does not apply are the sale of motor vehicles and wholesale containers of antifreeze which are 55 gallons or larger. Many commercial automobile stations that provide services such as changing oil and antifreeze buy their antifreeze in bulk containers. Therefore, newly bought vehicles or vehicles that have their antifreeze changed at these commercial stations may not have antifreeze which contains the bittering agent. DOH indicates that auto owners may falsely assume that the antifreeze in their vehicles is safe. They may not take the usual precautions they would if the antifreeze were dripping from the vehicle or if they change it at home, leaving out the container with the used antifreeze.

In a report presented to the California Integrated Waste Management Board on July 25, 2001 indicated that the addition of denatonium benzoate is very inexpensive, costing \$0.02- \$0.03 per gallon of a \$ 5 dollar per gallon product.

The same report noted that the American Association of Poison Control Centers has recommended that aversive agents be added to ethylene glycol products. Aversive agents are currently used in other household products including pesticides. The report states that industry is concerned that if an aversive agent were added to ethylene glycol based antifreeze, consumers would be less vigilant in storing and managing the product.

The American Medical Association, the National Safety Council, the American Academy of Veterinary and Comparative Toxicology, and the American Journal of Public Health have all adopted resolutions or policy statements supporting the inclusion of a bittering agent in hazardous products.

AMENDMENTS

DOH suggests amending the bill requiring commercial operations that change antifreeze in automobiles to also use a bittering agent when they change the antifreeze in motor vehicles.

Reference is made to “technical issues” and “fiscal implications” above.

BD/dm