U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814-4408

Record of Commission Action
Commissioners Voting by Ballot*

Commissioners Voting: Chairman Hal Stratton
Commissioner Nancy A. Nord
Commissioner Thomas H. Moore

ITEM:

Petition HP 04-2 Request to Ban Sulfuric Acid Drain Openers for Consumer Use (Briefing Packages dated February 27, 2006 and October 6, 2005)

DECISION:

The Commission voted 2-1 to deny Petition HP 04-2 and direct the staff to prepare a letter of denial to the petitioner. Chairman Stratton and Commissioner Nord voted to deny the Petition. Commissioner Moore voted to grant the Petition and submitted a statement explaining his vote. (A copy of the statement is attached.) Petition HP 04-2 from Dr. Michael Fox requests that the Commission issue a ban on sulfuric acid drain openers or, in the alternative, require packaging of sulfuric acid in single use containers with a maximum sulfuric acid concentration of 84 percent.

For the Commission:

Todd A. Stevenson
Secretary

* Ballot vote due March 6, 2006

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BETHESDA, MD 20814

STATEMENT OF THE HONORABLE THOMAS H. MOORE ON PETITION HP 04-2
REQUEST TO BAN SULFURIC ACID DRAIN OPENERS FOR CONSUMER USE
March 6, 2006

This is the third time that the Commission has been petitioned to ban sulfuric acid drain openers (SADOs). The first time, the Commission granted the petition but ultimately did not proceed to rulemaking, deferring instead to the promise of voluntary action by a coalition of some of the sulfuric acid drain opener manufacturers. The industry had indicated to the Commission that they would be looking at, among other things, packaging improvements, a heat-sealed safety cap, a plug to limit the amount of the product that could come out at any time, and alternative chemical formulations. In its decision not to proceed with rulemaking, the Commission stated:

> "Despite its decision not to propose a ban, the Commission remains concerned about the potential for serious injury from the use of sulfuric acid drain cleaners and the limited number of serious injuries which have occurred. The Commission believes that efforts directed at improved labeling and product design and consumer education could reduce the risks of injury associated with these products. Therefore, the Commission directed its staff to participate with the Ad Hoc Association of Chemical Producers (ACP), an industry group of producers of sulfuric acid drain cleaners, in a voluntary effort to seek safer consumer use of sulfuric acid drain cleaners. The group will develop a plan of voluntary initiatives, including labeling or the use of a separate instruction booklet warning of the hazards of these products and improved packaging designs, such as the use of a heat sealed safety cap to reduce the risk of injury from accidental spillage or the use of a special plug which will permit only a small amount of the product to flow at any time."

The staff did work with ACP and a voluntary standard was indeed adopted, although it did not include either the heat sealed safety cap or the special plug to limit the amount of product flow nor was there any reference to alternative chemical formulations. One valuable thing the ACP did agree to do was to send annual reports to the Commission of injuries attributed to the sulfuric acid drain products of their members.

The second time this issue came before the Commission, the petition was denied outright, based in part on the existence of the voluntary standard. However, the denial letter contained the

following sentence: "Concern remains about the potential for all types of drain cleaners to cause injury."

Now we are faced with this issue for a third time. The ACP has disbanded due to "legal liability." The voluntary standard is in limbo. It is hard to say how effective that standard was given the fact that the 1996 briefing package found a "significant upward trend" in injuries from sulfuric acid drain openers from 1980 to 1994, which is after the Commission had deferred to voluntary action. (The injury trend is hard to analyze as the removal of the threat of a ban resulted in an upsurge in the sale of sulfuric acid drain openers to consumers during that same period.)

It has always been difficult to get a handle on the injury numbers because we know the National Electronic Injury Surveillance System (NEISS) estimates, which only deal with injuries treated in hospital emergency rooms, are an undercount. The Toxic Exposure Surveillance System (TESS) data which compiles information on calls to poison centers is also an undercount, as not all poison control centers participate in TESS and not all incidents involving drain opener exposure would be reported to a poison control center (e.g., those involving dermal burns). And now the ACP injury reports, which gave us additional information on SADO incidents, are no longer being provided. Staff has no record of receiving any reports after 1996, although the ACP did not disband until 2002.

There are indications that injuries from sulfuric acid drain openers tend to be somewhat more severe than injuries from other acid or from alkaline drain openers. However, a number of variables affect injury severity and any chemical drain opener can produce severe injuries. One way to compare injury severity is to look at the hospitalization rate for various products. In 2004, the estimated hospitalization rate for all consumer product-related injuries treated in hospital emergency rooms was three percent. The hospitalization rate for chemical drain openers is seven percent, more than two times the rate for all consumer products.

Recently, the Commission granted a petition and issued an Advance Notice of Proposed Rulemaking to adopt the ASTM voluntary standard for cigarette lighters as a mandatory standard, when the hospitalization rate from injuries due to cigarette lighter malfunction was under four percent. The average societal costs from mechanical malfunctions of the nearly **one billion** lighters sold each year is $38 million, whereas the average annual cost of medically-attended injuries from the approximately 75 million chemical drain openers sold each year is $93 million. If cigarette lighters merit Commission attention, then surely chemical drain openers merit attention as well.

Each time the Commission has dealt with this issue it has expressed unease and concern about the severity of the injuries that can be caused by drain openers. What has stymied the Commission each time, I think, is that the remedy proposed by the petitioners--the banning of one particular type of chemical drain opener, those made with sulfuric acid--is not expected to solve the problem because of the likelihood that consumers will simply switch to other chemical drain openers, either acid or alkaline, which can be just as dangerous as the sulfuric acid drain openers they would be replacing. The Commission is not limited to taking the narrow action proposed by the petitioners. Instead of continuing to express concern, but dismissing the issue

because of the limitations of the proposed remedy, perhaps we should be examining the entire class of chemical drain openers to see what can be done to make them **all** safer.

We know that lower concentrations can affect the likelihood and severity of injury in both acid and alkaline drain cleaners. There appears to be a wide range of concentrations in the chemical products on the market. The limitations of the injury data currently available prevent us from being able to link specific products and specific acid concentrations with particular injuries. If, as some manufacturers indicate, effective drain openers can be made that present a lower risk of injury because of the lower concentration of the acid, that is something we should know. Staff has indicated that developing a standard test method for testing the performance of chemical drain openers would not be a particularly resource intensive task but that assessing the injury reduction from reducing the concentration of acid in the products may be more complex as other factors, such as the pH of the product, play a role in the severity of injury. This latter issue would involve a toxicity review and a dose-response analysis of the various chemicals used in drain openers.

Another possible area of investigation involves the shape and configuration of the container in which the chemicals are marketed. Container shape plays a role in the safety and ease of gripping and pouring the contents. For example, wider bottle bases, molded handles and separate attachments that fit in the drain could reduce the likelihood of certain injuries from tipover and splashing.

Despite the shortcomings of relying on labeling, in this most recent package, staff noted areas where changes in labeling might improve consumer compliance with the instructions. Staff suggested several labeling/instructions revisions such as incorporating the warning statements with the use instructions and making sure the warning to use safety goggles and gloves, on acids that require their use, is displayed conspicuously. Enough time has passed since the labeling of chemical drain openers was given a thorough review that our staff and the scientific community may be able to devise changes that will reduce injuries. One small step in this area is making sure that the medical treatment advice given on the containers is accurate and I hope that our staff sends a letter to the industry on that matter and that the industry takes appropriate action.

The disbanding of the ACP has left a void in the voluntary standard arena with regard to sulfuric acid drain openers. However, it is time for the entire chemical drain opener industry to be involved in addressing the injuries from their products. An existing voluntary standards body, such as ASTM International, needs to undertake action in such areas as labeling and safe container design. Our staff should move forward on the concentration/ph considerations of these products, as resources permit.

We may have to have certain dangerous products in our homes, but if that is the case, we must take all available steps to make sure those products are, and can be, used in the safest manner possible.

I am therefore voting to grant the petition, using the Advance Notice of Proposed Rulemaking as an information tool to explore the full range of possible solutions to the continuing problem of injuries from chemical drain openers.