

LEGISLATION / Important government actions

The complex question of aerosol safety, with its implications of new and more rigid consumer-protection legislation, has been at low pressure for several years. But now it has reached a critical point and is being intensively examined by Federal, state and local governments, and by aerosol packagers and suppliers. At stake is the continued growth and profitability of a U.S. industry that last year produced more than 2.6 billion filled containers.

This aerosol-production figure is significant in current concern over the safety of this package form because of a marketing factor that perhaps helped keep the estimated '71 output only slightly above '70's total of 2.62 billion units. Original forecasts of as much as 8% annual growth were dimmed in recent months by the shadow cast by the Food and Drug Administration over hexachlorophene, an ingredient widely used in feminine-hygiene products, including purse-size aerosols.

Out of current studies and legislative proposals could come new laws or regulations to (1) minimize the toxicity hazard of refrigerant-type fluorinated-hydrocarbon propellants and other "inherently dangerous" product/propellant formulations, (2) reduce aerosol flammability and explosion hazards and (3) control deliberate and/or vandalistic misuse of inhalable aerosols and spray-on paints. The least that aerosol packagers can expect in new Federal controls this year is a regulation mandating graphic hazard symbols as an adjunct to printed label warnings, as requested of FTC by Rep. Fred Rooney (D.-Pa.) (MP, Dec. '71, p. 84).

In the face of this situation, some aerosol-product packagers and suppliers hew to the defensive argument that the pressure container is as safe as practicable technology can make it, that personal injuries are statistically minuscule, and that accidents are almost always traceable to consumer misuse.

Safety: the last word

Valid as this argument may be, it doesn't count for much when consumer protection is a powerful political and legislative issue that ranks among packaging's most serious problems (see p. 22). It is further weakened by the fact that even one preventable death is one too many—the

heart of such new packaging-control legislation as the Federal Poison Prevention Packaging Act (MP, Jan. '72, p. 22).

Nor is industry's defensive posture strengthened by periodic evidence that seems to argue for stronger industry self-policing or, in its absence, legislative fiat. For example:

Item: A recent issue of the prestigious *Journal of the American Medical Assn.* carried a report by Drs. Nancy C. Flowers and Leo G. Horan of the Medical College of Georgia indicting fluorocarbon propellants as the cause of irregular heartbeat and eventual death in dogs that breathed the concentrated vapors. The Georgia report follows by little more than a year a similar *Journal* story identifying the same propellant as the "possible cause" of sudden deaths among asthma patients after spray-inhalation therapy and calling for immediate studies "to determine the amounts of these propellant gases inhaled by and entering the blood of patients with asthma, housewives and others who use pressurized aerosol dispensers many times a day." (MP, Dec. '70, p. 84.)

Dr. Flowers concedes that the Georgia experiment was conducted under controlled abnormal circumstances (i.e., placing a plastic bag over each dog's head to achieve high vapor concentrations). Unfortunately for the industry, however, the report has the apparent stamp of authority that serves only to goad those who seek new and more restrictive controls.

Item: At the annual meeting of the Chemical Specialty Mfrs. Assn. in December, R. L. Allen of the U.S. Environmental Protection Agency noted that incinerator workers in Detroit plan to request extra hazard pay because of the explosion danger in empty, but still partly pressurized, aerosol cans. And then he added this first-person observation: "While visiting an incinerator in a large Midwestern city, a colleague and I were almost struck by an exploding aerosol container as additional waste was being placed into the incinerator. The potential hazard increases, of course, if substances such as paints and lacquers or other highly volatile products are involved. There are also potential dangers if the cans containing such volatile substances are compacted or

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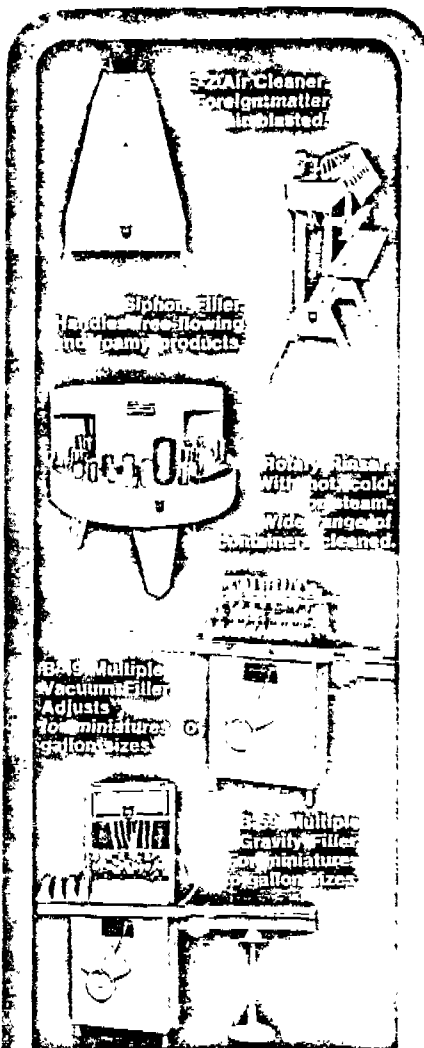
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passed through a baler, shredder or grinder... I am quite sure that there are many other potential possibilities for explosions and minor accidents even though manufacturers have warned consumers that explosion will occur if container temperature is elevated above a specific level."

Seeking the solutions

Not all of industry's efforts are strictly defensive. R&D money has, for example, been invested in the search for a reliable, integral and inexpensive pressure-relief device to trigger controlled and non-explosive product/propellant venting when a pressurized container is subjected to sudden temperature elevation. A front runner in this venture is American Can's RVR (Rim-Vent-Release) aerosol container, already in commercial use. Then, the Sterigard Corp. has a special pressure-relief valve that rises automatically under high heat to expose extra contents-release ports in the valve stem, then retracts when internal-pressure balance is reestablished (MP, Apr. '71, p. 14).

And the industry-supported Aerosol Educational Bureau is attempting to alleviate the deadly vapor-inhalation problem via an ongoing educational program aimed at high-schoolers. Reportedly, no inhalation deaths have occurred among students in 7,000 schools already exposed to its anti-sniffing filmstrip and supportive educational aids. Finally, fluorocarbon-propellant suppliers are researching additives that will make aerosol inhalation repugnant to thrill-seeking youngsters (like mustard additives used by manufacturers of model-airplane glue).

Still, such efforts are rated as "not good enough" by watchdogs of the public interest. For example, in his petition to FTC requesting a trade regulation mandating grisly hazard symbols, Rep. Rooney noted that neither the AEB's efforts nor stringent label warnings have halted deaths caused by excessive inhalation of aerosol vapors (more than 160 in the last official tally). So what can be done to control the aerosol-hazards problem? It is a question being explored independently by the Federal government, by industry itself and, not least important, by consumer crusader Ralph Nader.

The Federal investigation—an outgrowth of a report to Congress in which the now-defunct National Com-

mission on Product Safety cited aerosols as a hazardous-items category (MP, Sept. '70, p. 96)—is being spearheaded by FDA's Bureau of Foods. A task-force committee, representing various interested FDA bureaus and the Federal Environmental Protection Administration and headed by Dr. Albert C. Kolbye, Jr. (deputy director of the Bureau of Foods), is asking these questions as part of an overview of potential aerosol problems:

What label warnings should be considered?

What are the chief propellant hazards?

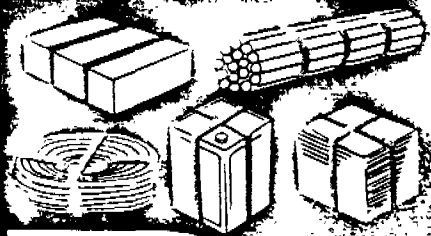
Which are the most hazardous product/propellant combinations and what controls—if any—will they require?

Dr. Kolbye emphasizes to MODERN PACKAGING that the task-force probe, still in its early stages, has not yet determined that an "aerosol problem" exists and must be remedied. He concedes that, if such a determination is made, the task force will recommend reasonable approaches to solutions, in order of problem priorities.

Dr. Kolbye says that FDA can issue remedial regulations under existing law (i.e., the Federal Hazardous Substances Labeling Act). But he adds that strong opposition by industry could lead to requests for new legislation. He does not, however, foresee the need for such a stringent measure, and notes that the committee welcomes data developed by industry and others who may be conducting their own aerosol-hazards investigations.

Coordinated industry research is exemplified by an aerosol-toxicity investigation launched by the Cosmetics, Toiletries and Fragrances Assn. (CTFA), formerly known as the Toilet Goods Assn., in cooperating with the Chemical Specialties Mfrs. Assn. (CSMA) and independent packagers and suppliers. CTFA's Pharmaceutical and Toxicology Committee, through its Aerosol Safety Subcommittee, has set up a panel of medical scientists (authorities in epidemiology, cardiology and lungs). They will investigate all aspects of aerosol inhalation and its effects on the human system. Although the investigation is still too young to speculate on results, a CTFA spokesman says that "we do not intend to dilly-dally and put ourselves in a situation where we have to respond to a crisis situation similar to the

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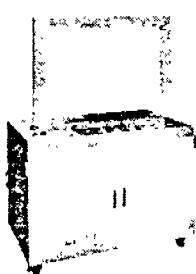


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cyclamates and hexachlorophene disasters."

On the other side of the philosophic fence, consumerist Ralph Nader's organization is investigating aerosol toxicity and explosion/flammability hazards. The toxicity problem—keyed to aerosol hairsprays—is being conducted by Byron Bloch, a Los Angeles consultant in biotechnology who works under contract to Nader. Although his report is not yet complete, Mr. Bloch says that after a year of evaluation he concludes that even normally healthy people can suffer lung-cilia deterioration or cardiac sensitization as a result of inhaling aerosol-hairspray vapors. Noting that commercial hairspray manufacturers neglect to mention these hazards on container labels—much less identify ingredients—Mr. Bloch says he hopes his report will "encourage the industry to provide more information to the consumer, ideally on a voluntary basis that will preclude the necessity of Government standards and bureaucratic entanglement."

The explosion/flammability investigation—by Ralf Hotchkiss, director of Nader's Center for Concerned Engineering, Washington, D.C.—also is still in progress, with final results and recommendations pending. However, Mr. Hotchkiss tells MODERN PACKAGING that preliminary findings reveal "no question but that there is a problem of consumer safety in both of these areas, and that some rectification will have to be made." He adds that his report will include cost/effectiveness evaluations of solutions proposed by industry and will encourage industry self-regulation.

A question of eminence

While aerosol-product marketers and suppliers ponder the possibility of new Federal controls, they must also cope with current lower-legislature actions that pose monumental problems of complying with laws that may differ intrastate as well as interstate. For example, state and municipal legislatures are considering outright bans or financial restrictions on the sale of paints in aerosol containers—on the ground that vandals use such items for wanton defacement of public buildings and monuments. Though aerosol spokesmen point out that such controls would solve nothing (felt-tip markers, for example, already are beginning to replace the aerosol paint

can as a cheaper and more convenient graffiti instrument), successful attempts to legislate restrictions on the sale of aerosol paints are a real possibility. Pending in Pennsylvania, for example, are two control measures: one to ban spray-paint sales in the state's major cities; another to subject paint dealers to a \$100 fine and 30 days' imprisonment for selling aerosol paints to a minor without written consent of his parent or guardian.

Of course, the threat of such legislative assumptions of power could be annihilated by new assertion of the pre-eminence of Federal law in all matters relating to interstate commerce. Such a decision might make a landmark case out of a Federal-court trial (imminent but as yet unscheduled as this issue goes to press) involving the aerosol industry, as represented by CSMA and the New York City Fire Dept. (NYFD).

This vital court test had its origins in a proposed NYFD regulation that would control flammable or combustible aerosol products sold or stored locally. Among other things, the rule would require prominent display of a NYFD certificate or permit number on affected retail containers (MP, Dec. '70, p. 86). Industry-representative CSMA challenged the proposal on the ground that Federal law is pre-emptive, arguing also that such a local law would impose special labeling, warehousing and distribution requirements on out-of-state packagers.

CSMA lost the first court test, but since has won a 2-1 reversal decision in the U.S. Court of Appeals. The majority decision granted CSMA's plea for an injunction against the regulation and ordered the Federal trial, noting that there is a need for "orderly factual investigation of the relationship between city regulations and relevant Federal laws." The dissenting opinion held that the Federal Hazardous Substances Labeling Act (FHSLA), the key Federal statute at issue in this dispute, is pre-emptive only for cautionary labeling, not for the additional identification labeling sought by the NYFD. This latter point represents the pivotal difference between the NYFD proposal and the FHSLA. So a Federal court decision that upholds CSMA's position could put the crusher on many state and local legislative proposals that are at variance with Federal law. It's something to keep your eye on. □