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EFFECT ON RECYCLE OF FERROUS SCRAP FROM COMMERCIAL CHEMICAL PRODUCTS USED IN AIR BAGS

Mr. Hershel Cutler
Executive Director
Institute of Scrap Iron and Steel, Inc.
1627 K St., NW
Washington, DC 20006

Dear Mr. Cutler:

Your letter dated December 10, 1984, was referred to my office for response. You expressed concern about that hazards posed by air bags that contain sodium azide, particularly as it affects the recovery of ferrous scrap for recycled automobiles.

The Department of Transportation addressed these issues in a study released July 11, 1984, called Final Regulatory Impact Analysis, Amendment to FMVSS #208, Passenger Car Front Seat Occupant Protection that explored many issues related to the use of air bags. A NHTSA staff member provided EPA with a copy of the section that discusses sodium azide. Pat III-20 of that report explains that the gas generants consist mainly of sodium azide and oxidizers. Page III-12 explains that upon ignition, the solid propellant begins to bur, producing nitrogen gas that inflates the air bag. Based on this analysis of the mechanics of air bag deployment, the sodium azide containing initiator would not be regulated as a commercial chemical product regulated by the hazardous waste regulations of the Environmental Protection Agency. EPA regulates commercial chemicals which are pure or technical grade and formulations in which the chemical is the sole active ingredient. Air bag propellant cartridges contain, as active ingredients, both sodium azide and oxidizers. The gas is generated through the action of both materials. Thus, the Resource Conservation and Recovery Act would not define the sodium azide in air bag canisters or obsolete automobile hulks as a listed hazardous waste.

The Agency has not established de minimis concentration

levels of toxicants below which wastes listed under §261.33 would cease to be regulated as hazardous wastes. Rather, exemptions are granted on a case-by-case basis in response to petitions. Again, the sodium azide that is in air bags would not be subject to RCRA regulation as a hazardous waste because it is not a sole active ingredient.

EPA is preparing a new regulation that would regulate certain mixtures of commercial chemical products. Under such a regulation, it is conceivable that the propellant cartridges could be classified as a hazardous waste. However, as we now envision such a regulation, auto hulks contaminated with either sodium azide or the propellant cartridges would not be so classified. In addition, if the air bags are deployed within the auto, the sodium azide is destroyed and there would be no question of even the spent canisters alone being considered subject to regulation. If the canisters were reclaimed, they would also not be regulated. The only case which may be regulated would be canisters which are removed and disposed of, which appears to be an unlikely scenario at the present time.

The DOT study on sodium azide propellants concluded that non-deployed inflator modules can be deployed, that an electrical deployment system is available now, that technical inspections for non-deployed modules are available, that a new retrofit air bag system is easily removed (and should have reasonably high salvage value), and that about 0.1 pound of sodium azide per site would be landfilled each working day. This study used a conservative estimate for the amount of sodium azide expected in each car, and EPA does not believe this management of sodium azide to be a problem at this time. Moreover, EPA understands that auto manufacturers have expressed an interest in providing incentives for removal and collection of air bag canisters, which would further reduce the environmental dispersion of sodium azide.

DOT regulation of deployment of inflator modules and reclamation of air bag canisters appears to pose no environmental concerns the EPA jurisdiction should address at this time. If you have any further questions, please contact Alan Corson or Irene Horner of my staff at (202) 382-4770 for assistance.

Sincerely yours,

Jack W. McGraw
Acting Assistant Administrator

bcc: Ruth Bell, OGC
Joyce Dain, TSCA
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