



Environmental Fact Sheet

EPA SETS DEGRADABILITY STANDARDS FOR PLASTIC RING CARRIERS

EPA has made final a rule that sets standards of degradability for plastic ring carrier devices, commonly used on beverage cans. The rule provides two options for testing the ring carriers to demonstrate that they degrade. Current ring carrier technology appears to meet these standards already.

Background

The improper disposal of plastic articles, including plastic ring carrier devices, results in aesthetic degradation of the environment and exposes fish and marine wildlife to entanglement and ingestion hazards. To minimize these hazards, Congress directed EPA to promulgate a rule that would require that ring carriers be made of "naturally degradable material which, when discarded, decomposes within a period established by such regulation." Congress also specified that the time period for degradation must be "the shortest period of time consistent with the intended use of the item and the physical integrity required for such use."

Currently, 27 states have passed laws regarding degradable plastics. All three processors of plastic ring carriers produce them from a photodegradable plastic -- ethylene carbon monoxide.

Action

EPA has now promulgated a rule that sets standards of photo-degradability for plastic ring carrier devices. This rule provides two options for testing the ring carriers to ensure that they degrade: a lab test and an *in situ* test. Both tests use the same physical endpoint by

measuring the brittleness of the ring carriers to indicate the degree of degradation. Each test has a time limit within which degradation must occur, and test conditions that simulate marine environmental conditions.

It is important to note that photodegradable plastic will degrade at different rates, depending on the amount of ultraviolet light received, and that seasonal variation of ultraviolet light is greater than geographic variation. In other words, not only will a ring carrier degrade more quickly in Miami than in Boston, but it will also take significantly longer for one to degrade in Miami during winter than during the summer months.

It is important to note the difference between *photodegradable* and *biodegradable*. Currently there is a photodegradable ring carrier; however, no biodegradable one has been developed. Photodegradable plastic items degrade to smaller fragments, and then stop; biodegradable plastics degrade completely. EPA encourages the development of biodegradable plastics. EPA has included the *in situ* option to allow such biodegrad-ables to be tested and used.

Ideally, the presence of ring carriers should be eliminated from the marine environment altogether. Improper disposal (such as littering) of all plastic waste, regardless of their degradability, pose an unnecessary hazard to marine wildlife. EPA encourages the ring carrier processors, ring carrier users, and the general public to work together to prevent littering and to properly dispose of ring carriers.

For More Information

For further information, or to order a copy of the *Federal Register* notice, please call the RCRA Hotline Monday through Friday, 8:30 a.m. to 7:30 p.m., EST. The national toll-free number is (800) 424-9346; for the hearing impaired, it is (TDD) (800) 553-7672. In Washington, D.C., the number is (703) 412-9810 or TDD (703) 412-3323. Or write to: RCRA Information Center, Office of Solid Waste (5305), U.S. EPA, 401 M Street, SW, Washington, D.C. 20460.