The Universe of Aerosol Cans in Retail

As discussed in our recent submittal, the 4.3 million pounds of aerosol cans managed as hazardous waste by Walmart in 2010 can be segregated into four major categories. While this information is Walmart specific, we believe it is also generally applicable to the broader retail sector since Walmart sells a wide variety of consumer aerosol products. Below are representative examples of the most common type of waste aerosols in each category:

1) **17%** contain non-hazardous propellant (e.g. nitrogen) and the remaining can contents are non-hazardous either by listing or characteristic (presuming aerosols are not D003 reactive)

1. Silly String
2. Fiesta Silly String
3. Automotive refrigerant refill or stop leak
4. Party Balloon Helium Cylinder
5. Engine Degreaser

2) **52%** contain propellants comprised of traditional ignitable fuel sources such as propane or butane and the remaining can contents are non-hazardous (either by listing or characteristic)

1. Glade Air Freshener
2. Kaboom Foam-Tastic bathroom cleaner
3. Edge Shave Gel
4. Scrubbing Bubbles bathroom cleaner
5. Canola Oil Cooking Spray
3) **12%** contain propellants comprised of traditional ignitable fuel sources such as propane or butane and the remaining can contents are also hazardous (typically by ignitable characteristic). This may be an important point for EPA to note - the large majority of cans in this category do not contain RCRA toxic or corrosive liquid. Typically the liquid product in the can is RCRA hazardous solely because once it is separated from the fuel based propellant, it is also characteristically D001. Therefore, an aerosol fuel recycler would not be managing large quantities of corrosive or toxic liquid after they puncture the cans and segregate out the fuel. There are actually relatively few aerosols that have a fuel based propellant and a liquid product that would be RCRA corrosive, toxic, or listed. Even aerosol pesticides generally do not contain a RCRA toxic or listed product. Walmart is aware of a few kinds of aerosol oven cleaners or toilet cleaners in which the product itself may be a RCRA corrosive, but these products make up a very small percentage of the consumer aerosol universe.

![Image of aerosol cans]

1. Lysol Disinfectant Spray (contents are also ignitable; contains alcohol)
2. Raid insecticide - (contents are also ignitable; contains alcohol)
3. Black hair coloring spray - (contents are also ignitable; contains alcohol)
4. Great Value Disinfectant Spray (contents are also ignitable; contains alcohol)
5. Body Sprays (contents are also ignitable; contains alcohol)

4) **19%** contain ignitable hazardous propellants that are not traditional fuels and the remaining can contents may or may not be hazardous (either by listing or characteristic). Interestingly, in this category the majority of the propellant by percentage is usually still a traditional fuel such as propane or butane that is blended with a percentage of 1,1-Difluoroethane (1,1DFE). 1,1-Difluoroethane is a flammable propellant that is characteristically RCRA ignitable and which has BTU value, although it is not a traditional fuel.

![Image of aerosol cans]

1. CleanSafe Air – Dust remover (contains 1,1 DFE)
2. Xtra hold Mousse (mixture of propane, butane, and 1,1 DFE)
3. Fructis Volume Mousse (mixture of propane, butane, and 1,1 DFE)
4. AirWick Fragrance dispersants (mixture of isobutane and 1,1 DFE)