



Massachusetts
Department
of
ENVIRONMENTAL
PROTECTION

f a c t s h e e t

Epinephrine Management Options for Schools

Are you disposing of expired epinephrine pens safely and legally?

Epinephrine, also known as adrenaline, is primarily used as a cardiac stimulant and a relaxer of bronchial smooth muscles. It is used to help offset allergic reactions to insect bites, stings, food or drugs. Epinephrine, which is often prescribed to people with severe allergies who are at risk for anaphylactic shock, is frequently used in the form of an auto-injector, such as an EpiPen™, which contains a spring-loaded needle that shoots through a membrane in the tip and into the recipient's body to deliver the medication. Epinephrine can also be delivered through a syringe.

Epinephrine is a listed "acutely hazardous waste" (P042) under the Massachusetts Hazardous Waste Regulations (310 CMR 30.136) because, even at low doses, improper or unknowing use or exposure can cause death or irreversible illness. Schools typically become subject to the Hazardous Waste Regulations by generating more "traditional" waste such as waste oil or solvents. However, in many schools, the school nurse is responsible for managing and administering students' prescription medications, including epinephrine. It is important for school administrators and school nurses to know the hazardous waste regulatory requirements that apply to epinephrine and associated containers, such as syringes and EpiPens. If your school has such a program and you have to dispose of an epinephrine product, you must follow MassDEP's regulations for a "Small Quantity Generator" of hazardous waste (See "For More Information" on Page 2).

Management Options for Epinephrine Waste at Schools

- *Used Epinephrine Syringes* – epinephrine syringes that have been used for their intended purpose and contain only epinephrine residue are not a commercial chemical product and therefore are not a hazardous waste. Such syringes should be disposed of as medical waste in a sharps container.
- *Unused Epinephrine (e.g., unopened syringes or EpiPens that are still fit for their intended purpose)*. EpiPens typically have a shelf life of 20 months, but schools may choose to conduct yearly clean-outs of stored medications. There are two options:
 - Reverse Distribution: Before the product's expiration date, return the unused syringes or EpiPens to the manufacturer, wholesaler, or other retailer under a take-back program.
 - Manage as a hazardous waste: If you decide the unopened syringes or EpiPens will not be used and you want to dispose of them, you can manage them as a hazardous waste and dispose of them using a "hazardous waste manifest" and "licensed hazardous waste transporter". If the municipality in which your school is located holds a Household Hazardous Waste Collection Event or has access to a permanent Household Hazardous Waste Collection Center, unopened syringes and EpiPens can be taken there for disposal. Please note that managing syringes in this way will not change your school's hazardous waste generator status or extend the length of time in which you are allowed to accumulate this waste before disposing of it.
- *An unused, ruptured container of Epinephrine*. If a container of epinephrine breaks, drops, or ruptures, the material must be managed as a hazardous waste. The material in question is still considered a "commercial chemical product". The

container, epinephrine residue, spill cleanup material, contaminated soil, and other debris resulting from the cleanup of the spill is a "hazardous waste" (P042) and must be disposed of by a licensed hazardous waste transporter using a hazardous waste manifest. MassDEP recommends that waste resulting from cleaning up a spill should be disposed of immediately and not held until it can be disposed of via a municipal Household Hazardous Waste Collection Event.

- *Epinephrine Hydrochloride*. Epinephrine Hydrochloride is not considered part of the P042 hazardous waste listing, and therefore can be disposed of with a school's solid waste.

For additional information

- Visit MassDEP's web site for information about hazardous waste management requirements by "Small Quantity Generators":
<http://www.mass.gov/dep/recycle/laws/policies.htm#sqq>
- MassDEP's hazardous waste management regulations (310 CMR 30.000) are available at: <http://www.mass.gov/dep/recycle/laws/regulati.htm#hw>
- For information on the U.S. Environmental Protection Agency (EPA) regulatory classification of residual epinephrine in used syringes, visit:
<http://yosemite.epa.gov/osw/rcra.nsf/0c994248c239947e85256d090071175f/6a5dedf2fba24fe68525744b0045b4af!OpenDocument>. Please note that MassDEP concurs with this determination.
- For information on the EPA regulatory classification of epinephrine salts, visit:
http://www.epa.gov/region1/healthcare/pdfs/EpiMemo_Final.pdf. Please note that MassDEP concurs with this determination.
- EPA has recognized "reverse distribution" take-back programs for unused epinephrine syringes. For more information, visit
<http://yosemite.epa.gov/osw/rcra.nsf/0c994248c239947e85256d090071175f/6a5dedf2fba24fe68525744b0045b4af!OpenDocument>
- If you have questions about managing this hazardous waste, contact James Paterson in MassDEP's Bureau of Waste Prevention at james.paterson@state.ma.us or 617-556-1096

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