



QUARTERLY NEWSLETTER

AMALGAM WASTE RECYCLING



On December 15, 2016, the EPA signed the final rule for the pretreatment standards to reduce discharges of mercury from dental offices into publicly owned treatment works (POTWs). Existing dental offices must comply within three years from the effective date while new dental offices must be compliant from the effective date of the rule. The EPA expects compliance with this rule will annually reduce the discharge of mercury by 5.1 tons as well as 5.3 tons of other metals found in waste dental amalgam to POTWs.

Per the EPA, although mercury in the form of dental amalgam is very stable, amalgam should never be disposed of in the garbage of infectious waste "red bag" and it should never be rinsed down the drain. The reason for this caution is that some communities incinerate municipal garbage, medical waste, and sludge from wastewater treatment plants. If amalgam waste ends up in one of these incinerated waste streams, it can volatilize at high temperatures and mercury will be released into the environment.

The good news is that amalgam waste kept separate from other waste can be recycled to reduce mercury emissions. After extensive review, waste regulators in the Great Lakes States recommend recycling amalgam as a best management practice for dental offices.

<https://www3.epa.gov/region02/waste/mercury/dental.htm>

HNHS offers Dental Waste Recycling for more information go to our website at <http://www.hnv-hnhs.com/dental-waste-recycling-kit>

GREEN CORNER – BLUE WRAP

Fifteen percent of hospital waste is recyclable plastic, equating to 2.1 million lbs. generated daily or 766.5 million lbs. of plastic waste annually. Blue wrap represents 255 million lbs. of this.

HNHS works with a third-party company to recycle blue wrap to eliminate the cost of having it hauled to a landfill.

HNHS is looking at other options for blue wrap recycling to include creating tote bags and other items for resale.

HANDLING OF VIALS, AMPULES, AND CARPULES

Determining the Correct Disposal Option

Vials, ampules and carpules may be subject to environmental regulations, public health regulations, or both depending on what formulations they contain and how they are collected. The environmental regulations specifically define what is empty and the definition of empty varies based on the formulation that was in the container (the vial, ampule, or carpule). So, to determine how to handle a vial, ampule or carpule, you must understand how the waste material in the container is classified and whether it is considered empty.

Can empty vials, ampules or carpules be placed in the sharps container? No, empty vials, ampules, or carpules cannot be managed in the sharps/medical waste container. When mixed with medical waste, the waste becomes subject to both the pharmaceutical waste regulations that apply and the medical waste regulations (subject to dual waste regulation). should be used as a tool to help evaluate how to meet applicable regulations. When vials, ampules, and carpules with residual chemicals are placed in a medical waste container and autoclaved, the pharmaceutical chemicals become vaporized and may impact the operator or they may be discharged in the wastewater discharged from the autoclave.

Can empty vials, ampules or carpules go in the regular trash? Yes, if a vial, ampule or carpule contained a pharmaceutical formulation that was a non-acute hazardous waste or a liquid industrial by-

product that was emptied using common practices used by healthcare for emptying the vial, ampule or carpule, it can be managed as a solid waste. If the vial, ampule or carpule has .3% or more by volume of the drug remaining in the container, it must be managed in accordance with its classification. **How can vials, ampules, and carpules that contain medications be managed?** Non-empty vials, ampules, and carpules must be managed to meet the management standards that apply based on how their contents is characterized.

How can carpules with anesthetic and blood be managed? Medications mixed with infectious medical waste must be managed at a facility authorized to accept both medical waste and pharmaceutical waste, which is considered a mixed medical or dual waste. This is the most costly management alternative with the least disposal options. As such, it is not recommended. Where mixing can be avoided, it should be. In some cases, like a thimerosal preserved vaccination that contains a live or attenuated virus, the non-empty container must be managed as a mixed medical or dual waste.

How can I find more resources? For more resources on pharmaceutical and medical waste management requirements, please go to www.michigan.gov/deqdrugdisposal and www.michigan.gov/deqmedwaste. For further questions on handling vials, ampules, and carpules, please contact Christine Grossman at 517-284-6860.



¹ Source Michigan DEQ, Drug Disposal, 2016