Management of Unused Pharmaceutical Nitroglycerin

Background

Nitroglycerin is a vasodilator (medication that dilates blood vessels), which is frequently used in the management of angina pectoris and to produce controlled hypotension during surgical procedures. It is available for injection, for intravenous (IV) administration, in extended release tablets, sublingual tablets, ointment, dermal patches, and spray.

Modifications to the mixture and derived from rule have changed the management of unused pharmaceutical nitroglycerin in most states. As of May 2005, unused nitroglycerin is NOT a hazardous waste (HW) in all the states and Guam EXCEPT for Hawaii. See CHPPM Fact Sheet “Revision to the Mixture and Derived From Rule” for clarification on this revision. Contact your environmental office to determine the proper disposal of non-hazardous, unused nitroglycerin.

Management Requirements in Hawaii

Unused nitroglycerin must be managed as a hazardous waste in HI. Nitroglycerin is listed in 40 CFR 261.33(e) of the Federal Environmental Protection Agency (EPA) hazardous waste regulations as an acutely hazardous waste P081. Discarded, unused or excess pills, ointment, spray or containers where nitroglycerin is the sole active ingredient* must be managed as a P081 hazardous waste, unless they can be returned to the vendor through a pharmaceutical returns contract. See the CHPPM Fact Sheet “Classification of Expired Pharmaceuticals” to determine if your state allows this practice.

Vials or bottles which contain any amount of nitroglycerin, or did contain nitroglycerin, must be managed as acutely HW (P081). As an acutely HW, up to one quart of nitroglycerin may be stored in a satellite accumulation site before it must be moved to a 90 day HW storage area or to a permitted HW storage facility. Syringes containing any amount of nitroglycerin must be managed as regulated medical waste since the syringe has been used for its intended purpose.

Note: Unused or discarded nitroglycerin patches are considered a manufactured product/article, and are therefore not regulated as a P081 waste (see PHC Fact Sheet “Management of Discarded Nitroglycerin Patches” for more information).

* The EPA refers to commercial chemical products as commercially pure grades and technical grades of the listed chemical or chemical formulations in which the listed chemical is the sole active ingredient. See reference #9444.1992(01) from the RCRA Monthly Hotline dated March 1992 concerning the definition of commercial chemical product. http://www.epa.gov/epaoswer/hotline/index.htm