

Just the Facts... **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.

Management of Unused Nitroglycerin

NOTE: Modifications to the mixture and derived from rule have changed the management of unused pharmaceutical nitroglycerin in some states. As of August 15, 2001 unused nitroglycerin is not a HW in the following states: AK, AL, AR, CA, CT, CO, DE, GA, HI, IA, KS, KY, MA, MD, ME, MI, MN, MS, ND, NE, NH, NM, OH, OR, RI, SD, TN, WA, WI, and the District of Columbia. See CHPPM fact sheet Revision to the Mixture and Derived From Rule for clarification on management of nitroglycerin. All other states must manage it according to the information below.

Commercial chemical products that contain nitroglycerin as the sole active ingredient in a formulation, are listed in 40 CFR 261.33(e) of the Federal Environmental Protection Agency (EPA) hazardous waste regulations as an acutely hazardous waste. The EPA hazardous waste number is P081. 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.* Discarded, unused or excess pills, ointment, spray or vials/containers where nitroglycerin is the sole active ingredient must be managed as a P081 hazardous waste. For example, formulations of nitroglycerin with 5% dextrose are considered sole active ingredient formulations.

Note: Unused or discarded nitroglycerin patches are not considered a commercial chemical product but a manufactured product, and are therefore not regulated as a P081 waste (see CHPPM Fact Sheet Management of Discarded Nitroglycerin Patches for more information). Since unused nitroglycerin is an acutely hazardous waste, only a maximum of 1 quart may be stored in a satellite accumulation site before it must be removed to a 90 day hazardous waste storage area or a permitted hazardous waste storage facility. Nitroglycerin readily migrates into many plastics, including the polyvinyl chloride (PVC) plastics commonly used for intravenous administration sets, therefore this tubing must also be managed as an acutely hazardous waste. Mixtures of nitroglycerin for injection or intravenous use should be prepared in the least amount required in order to minimize/reduce the amount that is unused after treatment is complete. Any amount left over from treatment (i.e., in bottles, vials, ampules, or IV bag/tubing) must be managed as an acutely hazardous waste.

*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>

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