

Regulatory Consensus on Health Care Issues

Where may this guidance be applied?

The hazardous waste programs of the Minnesota Pollution Control Agency (MPCA) and the Minneapolis-St. Paul metropolitan area counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington (Metro Counties) have reached consensus on the interpretations, guidance, and allowances discussed in this fact sheet. Generators of health care-related wastes may apply this guidance at any location in Minnesota unless specifically noted otherwise.

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Abandoned medications at schools, shelters, and detention facilities	<p>Medications voluntarily surrendered or abandoned at schools, temporary shelters, and detention facilities are considered household pharmaceutical waste. Except for controlled substances, any facility staff may transport abandoned medications to a licensed household pharmaceutical collection receptacle at a pharmacy or a law enforcement agency. Only law enforcement officers may transport abandoned controlled substances.</p> <p>Schools, shelters, and detention facilities are not considered the generators of the abandoned medications they transport to a licensed household pharmaceutical collection receptacle. No Hazardous Waste Identification Number (HWID) is needed for this activity. Do not report these wastes to the MPCA or Metro County.</p> <p>Check with the licensed household pharmaceutical collection receptacle host before bringing medications to them. Some hosts may choose to not accept medications from some sites.</p> <p>See MPCA fact sheets #w-hhw2-06, Collecting Pharmaceuticals from Households and Schools: Requirements for Law Enforcement Agencies, at https://www.pca.state.mn.us/sites/default/files/w-hhw2-06.pdf; and #w-hhw2-07, Collecting Pharmaceuticals from Households and Long Term Care Facilities, at https://www.pca.state.mn.us/sites/default/files/w-hhw2-07.pdf.</p>
Acute hazardous waste accumulation	<p>Health care providers and pharmacies that are Very Small Quantity Generators of hazardous waste (VSQGs) that accumulate more than one kilogram (kg) of finished form pharmaceutical acute hazardous waste must meet the training and emergency planning requirements for Small Quantity Generators (SQGs). Do not count the weight of pharmaceutical packaging or pharmaceutical containers, only the net pharmaceuticals and residue.</p> <p>The one kg accumulation threshold excludes waste in satellite accumulation containers. You may accumulate up to one quart or one kg of acute hazardous waste in each satellite accumulation area.</p> <p>See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
Acute containers & packaging	<p>Unless they have been triple-rinsed, manage containers and inner packaging that held acute hazardous waste pharmaceuticals equivalent to acute hazardous wastes. You may commingle these containers and packaging with non-acute wastes. See Packaging on page 13.</p> <p>Count only the estimated or calculated weight of acute residues when calculating your hazardous waste generator size and reporting your annual hazardous waste generation. See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
Aerosol inhalers	<p>Empty inhalers that meet hazardous waste empty container standards, including having no remaining pressure, are exempt from hazardous waste regulation. Recycle them if possible or manage as an industrial solid waste according to solid waste requirements. See Empty containers on page 7.</p> <p>Non-empty inhalers are hazardous wastes unless you evaluate them as non-hazardous. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-00.pdf.</p> <p>You may manage hazardous waste aerosols equivalent to universal wastes in Minnesota, or you may manage them through pharmaceutical reverse distribution. See MPCA fact sheet #w-hw4-00, Managing Waste Aerosols, at https://www.pca.state.mn.us/sites/default/files/w-hw4-00.pdf.</p>

Waste/Issue	Regulatory consensus
Alcohol-based hand sanitizers [• Contents]	Many waterless hand sanitizer products are alcohol-based and are ignitable hazardous wastes when discarded. Manage alcohol-based hand sanitizer dispensers that do not meet the empty container requirements as hazardous waste. Use of these products as intended is not “disposal” because the material does not become a waste. See Empty containers on page 7.
Aldex™	See Treating chemical waste at your site on page 16.
Amalgam separators [• Contents]	<p>Dentists in a Metro County must install and use an amalgam separator approved by the MPCA unless exempted by Metropolitan Council Environmental Services (MCES), the sewage treatment plant operator for nearly all cities in the Metro Counties.</p> <p>Dentists outside the Metro Counties may be required to install and use an approved amalgam separator by the operator of the sewage treatment plant they are connected to. Even if not required, the MPCA recommends all dentists in Minnesota use an approved amalgam separator. See MPCA webpage, Managing Dental Waste, at https://www.pca.state.mn.us/quick-links/managing-dental-waste.</p>
Ambulance waste [• Contents]	<p>Hospitals in Minnesota are required to accept properly packaged and labeled infectious waste from ambulance services. They are not required to accept infectious waste containers that include hazardous waste (dual waste), but may do so if properly labeled. Hospitals that choose to accept hazardous or dual wastes from one ambulance service must then accept such wastes from all ambulance services that serve their facility. Waste accepted from an ambulance service is considered to be the hospital’s waste. Alternatively, ambulance services may consolidate their infectious and hazardous waste at their central business location and dispose of it from there. See MPCA fact sheet #w-sw4-30, Infectious Waste: Management guidance for generators, at https://www.pca.state.mn.us/sites/default/files/w-sw4-30.pdf.</p>
Automated laboratory analyzers [• Contents]	<p>Evaluate a representative sample of each separate waste stream generated by an automated laboratory analyzer at the point it leaves the analyzer, before it is combined with other wastes. Each discharge pipe or container is considered a separate waste stream. Wastes from cuvettes and bubble tapes expelled from an analyzer at a common point may be considered a single waste stream for evaluation.</p> <p>Assume all wastes from an analyzer, including expired reagents, calibrators and all discharged or expelled wastes, are hazardous unless you evaluate them as non-hazardous.</p> <p>When collecting a representative sample of your analyzer's wastes, you must take into account calibrations, cleanings, and the number and types of tests specific to your analyzer and its use in your facility. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p>
Black containers [• Contents]	<p>You are not required to use any particular color for hazardous waste containers. Some container suppliers and waste vendors encourage the use of black containers for pharmaceutical hazardous wastes. If you choose to use color-coded waste collection containers, be careful not to use colors that already may signify other waste management to many health care employees, such as red, yellow, or blue. Regardless of color, you must properly label all hazardous waste containers. See MPCA fact sheet #w-hw1-05, Accumulate Hazardous Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-05.pdf.</p>
Cactus SmartSink™	See On-site drug destruction products on page 12.

Waste/Issue	Regulatory consensus
Carbon dioxide absorbents	<p>Assume carbon dioxide (CO₂) absorbents used in gaseous anesthesia systems are hazardous waste when disposed unless you have evaluated them as non-hazardous. CO₂ absorbents may contain sufficient barium to render them D005 toxic hazardous wastes; may carry health warnings that render them MN01 lethal hazardous wastes; or, although initially solids, may absorb enough moisture during use, accumulation, or disposal to make them liquid D003 corrosive hazardous wastes. See Characteristic hazardous wastes on page 4.</p>
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Characteristic hazardous wastes	<p>In addition to the four federal hazardous waste characteristics (Ignitability/Oxidizer, Reactivity, Corrosivity, and Toxicity), Minnesota has an additional state-specific characteristic called Lethality. See MPCA fact sheet #w-hw2-04, Characteristic Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-04.pdf.</p> <p>The MPCA allows healthcare providers to evaluate their pharmaceutical wastes for the lethality characteristic using a simplified method. See MPCA fact sheet #w-hw4-45b, Alternate Method to Evaluate Pharmaceutical Waste for the Lethality Characteristic, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45b.pdf.</p>
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ChemGon™	See Treating chemical waste at your site on page 16.
Chemotherapy hood filters	See Pharmacy hood filters on page 13.
Chemotherapy wastes	<p>Bulk chemotherapy waste: Though not defined in Minnesota law, <i>bulk chemotherapy waste</i> is considered to mean waste that is known to contain any chemotherapy agents. Examples include spill clean-up materials, contaminated personal protective equipment (PPE), and non-empty containers and infusion sets. Bulk chemotherapy waste does not include patient excretions or suction waste, such as vomit and irrigation return flow. See Excretions and suction waste on page 9.</p> <p>Assume bulk chemotherapy waste is lethal hazardous waste unless you evaluate it as non-hazardous or empty. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>Safe work practices recommend that disposable chemotherapy infusion equipment be handled as little as possible after use to minimize occupational exposure. The MPCA therefore discourages opening or emptying infusion equipment to attempt to meet the empty container standards.</p> <p>Trace chemotherapy waste: Though not defined in Minnesota law, <i>trace chemotherapy waste</i> is considered to mean waste that could have come into contact with a chemotherapy agent, but is not known to contain chemotherapy agents. Examples include PPE not visibly contaminated, outer packaging, and empty containers and infusion sets. You may assume trace chemotherapy waste is non-hazardous.</p>
[• Contents]	
Cidex™ OPA	See OPA solutions on page 12.
Clinitest™ tablets	<p>Unreacted Clinitest™ tablets are hazardous waste for both Reactivity and Lethality unless you evaluate them as non-hazardous.</p> <p>Reacted Clinitest™ tablets remain hazardous waste for Lethality unless evaluated as non-hazardous.</p> <p>See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p>
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<p>Collecting household medications</p> <p>[• Contents]</p>	<p>In Minnesota, two types of sites may voluntarily collect household medications from households, schools, and temporary shelters:</p> <ul style="list-style-type: none"> • Law enforcement agencies operated by government entities. See MPCA fact sheets #w-hhw2-06, Collecting Pharmaceuticals from Households and Schools: Requirements for Law Enforcement Agencies, at https://www.pca.state.mn.us/sites/default/files/w-hhw2-06.pdf. • Pharmacies licensed by the Minnesota Board of Pharmacy and authorized by the U.S. Drug Enforcement Administration. See #w-hhw2-07, Collecting Pharmaceuticals from Households and Long Term Care Facilities, at https://www.pca.state.mn.us/sites/default/files/w-hhw2-07.pdf. <p>Collection of household medications is voluntary and will not change the collector's hazardous waste generator 'size' or increase its annual fees. See Abandoned medications at schools, shelters, and detention facilities on page 2.</p>
<p>Controlled substances</p> <p>[• Contents]</p>	<p>Controlled substance regulated by the U.S. Drug Enforcement Administration (DEA) must be managed in compliance with both DEA requirements and Minnesota pharmaceutical hazardous waste requirements unless evaluated as non-hazardous. See MPCA fact sheet #w-hw4-45a, Evaluating Pharmaceutical Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45a.pdf. Many controlled substances are able to be evaluated as non-hazardous.</p> <p>Remember that <i>destruction</i> of controlled substances regulated by the DEA is different than <i>disposal</i> of pharmaceutical hazardous wastes regulated by the MPCA. Many controlled substance destruction methods do not meet hazardous waste disposal requirements. See Destruction versus disposal on page 6.</p> <p>You may choose to destroy your controlled substances on-site, then ship the resulting mixture for hazardous waste disposal. See On-site drug destruction products on page 12 and Treating pharmaceutical waste on page 17.</p>
<p>Cremated remains</p> <p>[• Contents]</p>	<p>Cremated human or animal remains are not infectious or pathological waste.</p> <p>Cremated human or animal remains may be individually scattered over any public water body in Minnesota, including lakes and rivers, without a permit or other authorization from the state or local government. However, approval may be required for water body access, group gatherings, or ceremonies.</p> <p>Written permission from the property owner must be obtained before scattering cremated human or animal remains over public or private land in Minnesota. No other authorization from the state is required, however local county or city ordinances may restrict scattering to certain lands.</p>
<p>Cuvettes, cartridges, and boats</p> <p>[• Contents]</p>	<p>Many laboratory analyzers use liquid reagents, calibrators, and cleaners packaged in cuvettes, cartridges, or boats. Assume all such liquids are hazardous waste unless you evaluate them as non-hazardous separate from the cuvette, cartridge, or boat. See MPCA fact sheet #w-hw1-01, Evaluate Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>Some cuvette, cartridge, and boat manufacturers have published Safety Data Sheets (SDS) showing the concentration of liquid hazardous constituents only as a percentage of the filled cuvette, cartridge, or boat, including the weight of the plastic or metal components, citing an allowance for 'articles' under the U.S. Occupational Safety & Health Administration (OSHA) Hazard Communication Standard. OSHA allowances do not exempt wastes from hazardous waste requirements. Applying these concentrations as published may result in an inaccurate evaluation of the liquids as non-hazardous.</p>

Waste/Issue	Regulatory consensus
Dental amalgam	<p>In Minnesota, mercury-containing amalgam in any form that will be recycled may be managed equivalent to universal waste. See MPCA fact sheet #w-hw4-62, Universal Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-62.pdf.</p>
[• Contents]	<p>Mercury-containing amalgam that will not be recycled must be managed under the full hazardous waste requirements.</p>
Dental wastewater	<p>Manage mercury-containing wastewater that has not been pretreated by an MPCA-approved amalgam separator as a fully regulated hazardous waste. You may discharge this wastewater to a sewage treatment plant (publicly owned treatment works, or POTW) if you notify the POTW operator and comply with their conditions. See Amalgam separators on page 3 and Sewering wastes on page 15.</p>
[• Contents]	<p>Do not discharge mercury-containing wastewater, whether pretreated or not, to a septic system.</p> <p>You may manage dental wastewater pretreated by an approved amalgam separator equivalent to universal waste. See MPCA fact sheet #w-hw4-62, Universal Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-62.pdf.</p>
Destruction versus disposal	<p>Controlled substances regulated by the U.S. Drug Enforcement Administration (DEA) must be <i>destroyed</i> by being rendered non-retrievable, meaning unavailable and unusable for all practical purposes. <i>Destruction</i> prevents diversion of the controlled substance for illicit purposes, however it does not prevent release into the environment. The MPCA cannot provide any guidance on whether any particular method or product meets the DEA's destruction requirements. You must contact the DEA for destruction questions. See More information on page 19.</p>
[• Contents]	<p>Destruction is different than the proper <i>disposal</i> of unevaluated (and therefore assumed hazardous) and hazardous waste pharmaceuticals required by the MPCA, which means to permanently prevent the hazardous constituents of the waste from entering the environment or harming human health. Many methods of controlled substance destruction, including products for on-site treatment, do not reach hazardous waste disposal standards. See On-site drug destruction products on page 12 and Treating pharmaceutical waste on page 17.</p>
Deterra™ Drug Deactivation System	<p>See On-site drug destruction products on page 12.</p>
DisposeRx™	<p>See On-site drug destruction products on page 12.</p>
Drug Buster™	<p>See On-site drug destruction products on page 12.</p>
DrugDisposeAll™	<p>See On-site drug destruction products on page 12.</p>
The Drug Shredder™	<p>See On-site drug destruction products on page 12.</p>
Dual waste	<p>The MPCA uses the term <i>dual waste</i> to mean waste that simultaneously meets the definitions of both hazardous waste and infectious waste. You must manage dual waste in compliance with both hazardous and infectious waste requirements. See MPCA fact sheets #w-hw1-00, Summary of Hazardous Waste Requirements, at https://www.pca.state.mn.us/sites/default/files/w-hw1-00.pdf; and #w-sw4-30, Infectious Waste, Requirements for Generators, at https://www.pca.state.mn.us/sites/default/files/w-sw4-30.pdf.</p>
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Waste/Issue	Regulatory consensus
Dust and particles	<p>If a solid pharmaceutical is a hazardous waste when disposed of, the dust and particles created by that waste are also hazardous waste. You may visually examine solid surfaces and personal protective equipment (such as countertops, pill dispensers, and gloves) that may have come into contact with solid pharmaceuticals (such as tablets) to identify whether contamination has occurred. Uncontaminated solid surfaces and personal protective equipment may be managed as non-hazardous waste. Manage materials used to clean up dust or particles of a hazardous waste, such as wipes, as hazardous waste.</p> <p>[• Contents]</p>
ECG & EKG electrodes	<p>Many electroencephalograph (ECG) and electrocardiogram (EKG) electrodes contain silver in metallic or gel form. Assume waste ECG and EKG electrodes are D011 toxic hazardous wastes unless you evaluate them as non-hazardous. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>[• Contents]</p>
Electronic cigarettes	<p>Assume the liquid in electronic cigarettes, e-cigarettes, and vaporizers contains nicotine and is a P075 acute hazardous waste unless you have evaluated it as non-hazardous. See MPCA fact sheet #w-hw4-65, Vaping Liquids, E-cigarettes, and Nicotine Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-65.pdf.</p> <p>[• Contents]</p>
Electronics waste	<p>Any medical equipment containing a circuit board is considered electronics waste, or e-waste, in Minnesota. E-waste must be assumed to be D008, D011, and D006 toxic hazardous waste due to the lead, silver, and cadmium in most printed circuit boards and connectors unless evaluated as non-hazardous. Manage e-waste by recycling or as fully regulated hazardous waste. See MPCA fact sheet #w-hw4-15, Electronic Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-15.pdf.</p> <p>[• Contents]</p>
Element Medication Disposal System™ (MDS)	<p>See On-site drug destruction products on page 12.</p>
Empty containers	<p>If a container held an acute hazardous waste pharmaceutical such as nicotine or warfarin, it is not 'empty' until it has been triple-rinsed (rinsed three times) using a rinsing liquid that can dissolve the contents. The rinsing liquid is then an acute hazardous waste. See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p> <p>All other containers that previously held hazardous waste or unevaluated pharmaceuticals may be considered 'empty' for hazardous waste purposes (also known as 'RCRA-empty') only if both of these conditions are met:</p> <ol style="list-style-type: none"> 1. All material that can be removed by the method commonly used for that type of container has been removed. For example, if material is normally removed from a vial by aspiration with a syringe, then the vial must contain no liquid which could still be removed with a syringe; and 2. After the first condition has been met, no more than 3% of the container capacity remains. (Three percent applies to containers of 119 gallons or less. Larger containers have different standards.) <p>See MPCA fact sheet #w-hw4-16, Containers Used to Hold Hazardous Wastes & Products, at https://www.pca.state.mn.us/sites/default/files/w-hw4-16.pdf.</p> <p>[• Contents]</p>

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Epinephrine	<p>Epinephrine salts (such as hydrochloride, bitartrate, and borate), which comprise the majority of pharmaceutical forms of epinephrine, are not P042 acute hazardous wastes in Minnesota. Only waste that contains unused epinephrine base as its sole active ingredient is P042 acute hazardous waste. Health care providers must determine which form of epinephrine is in their waste.</p> <p>Epinephrine in any form, whether a salt or not, is an MN01 lethal hazardous waste in Minnesota whenever its concentration is 0.24 percent or higher ($\geq 0.24\%$). Epinephrine at less than 0.24 percent ($< 0.24\%$) is not lethal hazardous waste.</p> <p>[• Contents]</p> <p>See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
Ethylene oxide sterilizer residues	<p>Unused ethylene oxide (EtO) is a U115 listed hazardous waste.</p> <p>Properly operated EtO sterilizers are designed to minimize the creation of harmful EtO residues, including ethylene chlorohydrin (ECH), that may be hazardous wastes. Waste containing ECH at 14% or more ($\geq 14\%$) is an MN01 lethal hazardous waste.</p> <p>Sterilizer operators who are following the manufacturer's instructions, including load configuration, aeration, heating, and nitrogen washing, if applicable, may assume that used EtO sterilization wastes are non-hazardous.</p> <p>[• Contents]</p>
Evaluation documentation	<p>You must be able to readily access (physically or electronically) at your site all documentation from your waste evaluations. If an evaluation was performed by a third party, such as a consultant or a transporter, you must have the documented rationale they used to evaluate the waste (e.g. references to the actual flashpoint, presence and concentration of any contaminants, median lethal dose, etc.); the final conclusion alone is not sufficient. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>[• Contents]</p>
Excretions and suction waste	<p>Liquid and solids excreted by patients or evacuated from patients are not considered generated for hazardous waste purposes and are not required to be collected or subject to hazardous waste management. Examples include excreted or vomited barium-containing radiological contrast media, gastric suction waste from an oral poisoning patient, and chemotherapy instillation return flow.</p> <p>Implanted medical devices and equipment removed from a patient, such as insulin pumps, pacemakers, and intrauterine devices (IUDs), are considered potentially hazardous waste and are not exempt. See Implanted medical devices on page 10.</p> <p>[• Contents]</p>
Formaldehyde and formalin	<p>Formalin is a solution of formaldehyde, methanol, and water.</p> <ul style="list-style-type: none"> • Unused solutions containing formaldehyde as the sole active ingredient are U122 listed hazardous wastes at any concentration. See MPCA fact sheet #w-hw2-03, U List of Hazardous Waste, at https://www.pca.state.mn.us/sites/default/w-hw2-03.pdf. • Used and unused solutions containing 20 percent or more ($\geq 20\%$) formaldehyde are MN01 lethal hazardous wastes. See MPCA fact sheet #w-hw2-05, The Lethality Characteristic, at https://www.pca.state.mn.us/sites/default/files/w-hw2-05.pdf. • Used solutions containing less than 20 percent ($< 20\%$) formaldehyde are considered non-hazardous. <p>Notify your sewage treatment plant (publicly owned treatment works, or POTW) operator before you discharge any formaldehyde or formalin, regardless of its hazardous waste status. Never discharge waste formalin or formaldehyde to a septic system. See Publicly Owned Treatment Works on page 14.</p> <p>[• Contents]</p>

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Free liquids and RCRA-dry sorbents	<p>'Free liquids' are liquid wastes that may drip or be squeezed from disposed sorbents (such as swabs, towels, wipes, and rags). Sorbents with free liquid must be managed as the liquid itself would be. For example, swabs with free liquid ignitable ethanol must be managed as D001 ignitable hazardous waste.</p> <p>Sorbents that do not contain free liquids are considered 'RCRA-dry'. (The Resource Conservation and Recovery Act, or RCRA, is the federal hazardous waste statute.) Sorbents may be considered RCRA-dry in Minnesota if no liquid drips from them when wrung or squeezed. See MPCA fact sheet #w-hw4-61, Managing Sorbents: Towels, Wipes, and Rags, at https://www.pca.state.mn.us/sites/default/files/w-hw4-61.pdf.</p> <p>You must assume all sorbents to which you add liquids, as well as all sorbents with attached liquid reservoirs such as applicators commonly used with surgical and wound prep solutions, contain free liquids until you show they are RCRA-dry. See Surgical/wound prep products on page 16.</p> <p>[• Contents] You may assume prepackaged disinfectant wipes to which you do not add liquid are RCRA-dry after use. See Prepackaged disinfectant wipes on page 14.</p>
Glutaraldehyde	<p>Cold sterilants with a glutaraldehyde concentration of 27 percent or more ($\geq 27\%$) are MN01 lethal hazardous wastes. See MPCA fact sheet #w-hw2-05, The Lethality Characteristic, at https://www.pca.state.mn.us/sites/default/files/w-hw2-05.pdf.</p> <p>Since glutaraldehyde is an aquatic toxicant, generators are encouraged to neutralize waste glutaraldehyde of any concentration with glycine before discharge to the sanitary sewer. Health care providers that intend to discharge waste glutaraldehyde of any concentration to a sewage treatment plant must notify the plant operator before discharge, whether or not it is neutralized.</p> <p>[• Contents] See Publicly Owned Treatment Works on page 14.</p>
Hazardous terms	<p>Health care providers are subject to many laws with similar-sounding and sometimes-confused 'hazardous' terms. Different terms may apply to different items and trigger different legal requirements, even at the same facility. There are also several different simultaneous definitions for some hazardous terms. Which definition applies to a situation depends on which law is triggered by the situation. See MPCA fact sheet #w-hw0-15, 'Hazardous' Terms - What They Mean, at https://www.pca.state.mn.us/sites/default/files/w-hw0-15.pdf.</p> <p>[• Contents]</p>
HemoCue™ cuvettes	<p>Liquids from HemoCue™ cuvettes must be assumed to be MN01 lethal hazardous wastes unless evaluated as non-hazardous. Ensure you evaluate the liquids separate from the cuvette container. See Cuvettes, cartridges, and boats on page 5.</p> <p>[• Contents]</p>
Home-based care facilities	<p>Home-based care facilities, including overnight (residential) and daycare providers, may consider pharmaceutical and infectious waste generated in their homes to be household waste. See Household versus commercial wastes on page 10.</p> <p>[• Contents]</p>
Home health care provider waste	<p>Services providing health care to a patient in the patient's own home may manage hazardous and infectious waste generated in the patient's home as an exempt household hazardous waste if they dispose of it in the patient's household trash with the permission of the patient. Home health care providers may also transport these wastes back to their central business location and dispose of them as commercially-generated wastes. See Off-site care providers on page 12.</p> <p>[• Contents]</p>

Waste/Issue	Regulatory consensus
Household versus commercial wastes	<p>Pharmaceuticals at a residential health care facility that are stored in centralized, employee-controlled locations separate from resident living areas, as at hospitals and nursing homes, are considered commercially-generated hazardous waste. Hazardous waste pharmaceuticals may not be discarded into normal trash or taken to household pharmaceutical dropboxes.</p> <p>Pharmaceuticals at a residential health facility that are stored directly in resident rooms or unrestricted-access locations such as bathrooms, as at in-home care residences and some assisted living facilities, are considered household waste, even if the in-room cabinets or drawers are locked for safety.</p> <p>Note: Pharmaceutical and infectious waste generated in home-based care facilities with a maximum capacity of six residents may be considered household waste regardless of the above.</p>
[• Contents]	
Ictotest™ tablets	<p>Unreacted Ictotest™ tablets must be assumed to be D003 reactive hazardous waste. Reacted Ictotest™ tablets are not hazardous waste when a solid, but dissolving them in water may create a D002 corrosive liquid hazardous waste.</p> <p>Corrosive hazardous wastes may be neutralized on site and discharged to the sanitary sewer. Health care providers that intend to discharge Ictotest™ waste to a sewage treatment plant must notify the plant operator before discharge, whether or not it is neutralized. See Publicly Owned Treatment Works on page 14.</p>
[• Contents]	
Implanted medical devices	<p>Implanted medical devices and equipment removed from a patient, such as insulin pumps, pacemakers, and intrauterine devices (IUDs), are considered potentially regulated waste and are not exempt. Devices containing circuit boards or batteries are electronic wastes. See Electronics waste on page 7 and Intrauterine devices (IUDs) on page 10.</p>
[• Contents]	
Infectious waste	<p>Infectious waste is the term in Minnesota for biologically-dangerous waste from health care providers. This waste may also be referred to as biohazardous waste, medical waste, or regulated medical waste (RMW). Any health care provider generating infectious waste, including just sharps, must prepare and follow an infectious waste management plan. Do not send your infectious waste management plan to the MPCA or Metro County unless specifically requested. See MPCA fact sheet #w-sw4-30, Infectious Waste, at https://www.pca.state.mn.us/sites/default/files/w-sw4-30.pdf.</p> <p>You may be able to treat your infectious waste on your site. See Treating infectious waste at your site on page 16.</p>
[• Contents]	
Intrauterine devices (IUDs)	<p>Some intrauterine devices (IUDs) may contain barium for radiopacity purposes, and some may contain pharmaceutical hormones to increase their effectiveness. When removed by a health care provider and disposed, such IUDs may be D005 toxic hazardous wastes or MN01 lethal hazardous wastes. Manage all removed IUDs as hazardous waste or evaluate them as non-hazardous. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p>
[• Contents]	

Waste/Issue	Regulatory consensus
Intravenous bags and attached tubing	<p>An intravenous (IV) bag and its attached tubing (commonly referred to as an administration or infusion set) are together considered a container. When assessing whether an administration set is empty, you must consider residual liquid in the entire set, including the attached tubing, unless any portion of the set may be removed and is discarded separately. See Empty containers on page 7.</p> <p>Tubing flushed with saline at three times the volume of the tubing is considered to have met both the empty container requirement for all hazardous wastes and the triple-rinsing requirements for acute hazardous wastes. This interpretation applies only to that segment of tubing actually flushed and not to upstream tubing, attached IV bags, or other equipment.</p> <p>Note: Administration sets containing pharmaceuticals often leak after disposal, so consider them hazardous waste free liquids unless evaluated as non-hazardous. See Free liquids and RCRA-dry sorbents on page 9.</p>
[• Contents]	
Isolyser/SMS™	See Treating infectious waste at your site on page 16.
Laboratory waste	<p>Assume all laboratory waste you dispose is hazardous unless you evaluate it as non-hazardous. Rinsing laboratory stains, reagents, and fixatives into a sink or drain is disposal. Health care laboratories that discharge any waste to the sanitary sewer must notify the sewage treatment plant operator before discharge. See Publicly Owned Treatment Works on page 14.</p> <p>See also Automated laboratory analyzers on page 3.</p>
[• Contents]	
Listed hazardous wastes	<p>In addition to the four federal hazardous waste lists (F, K, P, and U), Minnesota has an additional state-specific hazardous waste list: polychlorinated biphenyls (PCBs). However, the K-List does not apply to healthcare providers, and PCBs are usually found in healthcare facilities only in fluorescent lamp ballasts and capacitors in older radiology and radiation therapy equipment. See MPCA fact sheets:</p> <ul style="list-style-type: none"> • #w-hw2-00, F List of Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-00.pdf • #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf • #w-hw2-03, U List of Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-03.pdf <p>#w-hw4-48f, Managing PCBs in Ballasts and Small Capacitors, at https://www.pca.state.mn.us/sites/default/files/w-hw4-48f.pdf</p>
[• Contents]	
Mail-back pharmaceutical disposal	<p>You may use a 'mail-back' pharmaceutical disposal service only if you either:</p> <ul style="list-style-type: none"> • comply with all pharmaceutical reverse distribution conditions. See MPCA fact sheet #w-hw3-36b, Pharmaceutical Reverse Distribution, at https://www.pca.state.mn.us/sites/default/files/w-hw3-36b.pdf; or • have evaluated your pharmaceuticals wastes as non-hazardous. See MPCA fact sheet #w-hw4-45a, Evaluating Pharmaceutical Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45a.pdf.
[• Contents]	
MaxPro Solidification Processing Unit (SPU)™	See On-site drug destruction products on page 12.
Needle-less syringe connectors	<p>Needle-less syringe connectors of any size connected to a syringe with the plunger fully depressed may be considered part of the syringe and 'RCRA-empty' as long as the connector does not include any flow tubing. See Waste in used syringes on page 18 and Empty containers on page 7.</p>
[• Contents]	

Waste/Issue	Regulatory consensus
Nicotine patches & gum	<p>Unused nicotine patches and gum destined for disposal are considered regulated wastes in Minnesota, not manufactured articles, and are therefore P075 acute hazardous wastes. Manage packaging materials for nicotine patches and gum equivalent to acute hazardous waste as discussed in Packaging on page 13.</p> <p>Applied nicotine patches and chewed gum are considered 'used' in Minnesota (regardless of how long the patch was on the patient's skin or how long the patient chewed the gum); and are therefore no longer P075 acute hazardous waste. See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
[• Contents]	
Nitroglycerin	<p>Nitroglycerin in any final pharmaceutical form is not a P081 acute hazardous waste. See MPCA fact sheet #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
[• Contents]	
Off-site care providers	<p>Providers that care for patients off-site or in the patient's home may choose to transport wastes generated at the remote job site back to their primary place of business for consolidation and subsequent shipment for disposal. Home health care providers, including those using personal vehicles for business purposes, and ambulance services are eligible for this allowance. See MPCA fact sheet #w-hw3-11, Managing Hazardous Waste Generated by Construction and Service Contractors, at https://www.pca.state.mn.us/sites/default/files/w-hw3-11.pdf.</p>
[• Contents]	
On-site drug destruction products	<p>Most products marketed for on-site drug destruction, including the:</p> <ul style="list-style-type: none"> • Cactus SmartSink™ • Deterra™ Drug Deactivation System • DisposeRx™ • Drug Buster™ • DrugDisposeAll™ • The Drug Shredder™ • Element Medication Disposal System™ (MDS) • MaxPro Solidification Processing Unit (SPU)™ • The PillCatcher™ • Pill Terminator™ • RxDestroyer™ <p>are intended to meet U.S. Drug Enforcement Administration (DEA) requirements for controlled substances destruction and Minnesota Board of Pharmacy (Board) requirements for legend (prescription) drugs destruction. They will not render unevaluated or hazardous pharmaceuticals non-hazardous under MPCA requirements nor allow you to throw them into the normal trash. See Destruction versus disposal on page 6 and Treating pharmaceutical waste on page 17.</p> <p>The MPCA can provide no guidance on whether these products meet DEA or Board standards or are approved for use by the DEA or Board. Only the DEA and Board can answer these questions. See More information on page 19.</p> <p>Some pharmaceutical waste generators in Minnesota use on-site drug destruction products to destroy their controlled substance and legend drug wastes for on-site safety and off-site shipping cost reasons and then ship them off-site for hazardous waste disposal no longer subject to DEA or Board regulation.</p>
[• Contents]	
OPA solutions	<p>Ortho-phthalaldehyde (OPA) cold sterilants are not hazardous waste in Minnesota, but are aquatic toxicants. The MPCA encourages OPA sterilant to neutralize the OPA with glycine before discharging it to the sanitary sewer. Health care providers that intend to discharge OPA to a sewage treatment plant must notify the plant operator before discharge, whether or not it is neutralized. See Publicly Owned Treatment Works on page 14.</p>
[• Contents]	

Waste/Issue	Regulatory consensus
Packaging	<p><i>Inner packaging</i> includes wrappers, adhesive backing from patches, and foil that were in direct contact with a pharmaceutical. Inner packaging is considered a segment of a container that held the pharmaceutical and is subject to the hazardous waste container requirements. See Empty containers on page 7 and Acute containers & packaging on page 2.</p> <p><i>Outer packaging</i> is any packaging outside of the inner packaging and that was not in direct contact with a pharmaceutical. Outer packaging may be managed as normal solid waste without evaluation.</p>
[• Contents]	
Personal protective equipment (PPE)	<p>Manage personal protective equipment (PPE) potentially contaminated with solid pharmaceuticals or other solid hazardous wastes such as tablets as discussed in Dusts and particles on page 7.</p>
[• Contents]	<p>Manage PPE potentially contaminated with liquid pharmaceuticals or other liquid hazardous wastes as discussed in Chemotherapy wastes on page 4.</p> <p>Manage radiology PPE as discussed in X-ray shielding and packaging on page 18.</p>
Pharmaceutical waste assumption	<p>You must assume all pharmaceutical waste in Minnesota is hazardous unless you evaluate it as non-hazardous. See MPCA fact sheet #w-hw4-45a, Evaluating Pharmaceutical Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45a.pdf.</p>
[• Contents]	
Pharmacy hood filters	<p>Filters from pharmacy preparation hoods may become listed, toxic, or lethal hazardous waste if contaminated by the pharmaceuticals prepared under them. Evaluate your pharmacy hood filters for any potential listed or characteristic hazardous waste or manage them as hazardous waste. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p>
[• Contents]	
Phentermine	<p>Phentermine hydrochloride is not P046 acute hazardous waste in Minnesota. Only waste that contains unused phentermine base as its sole active ingredient is a P046 acute hazardous waste. Health care providers must determine which form of phentermine is in their waste.</p>
[• Contents]	<p>Phentermine hydrochloride is a Schedule IV controlled substance. See Controlled substances on page 5.</p>
The PillCatcher™	<p>See On-site drug destruction products on page 12.</p>
Pill Terminator™	<p>See On-site drug destruction products on page 12.</p>
Prepackaged disinfectant wipes	<p>Packaged disinfectant wipes that are pre-moistened only with an alcohol solution may be assumed to be RCRA-dry and non-hazardous after use if you did not add any liquid to the wipe. If you add liquid to a wipe or swab, you must show it does not contain free liquids when disposed or manage it as a hazardous waste. See Free liquids and RCRA-dry sorbents on page 9.</p>
[• Contents]	<p>If the wipes contain other disinfectant agents, assume they are hazardous waste unless you evaluate them as non-hazardous. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p>

Waste/Issue	Regulatory consensus
Publicly Owned Treatment Works (POTW) [• Contents]	<p>If your facility is connected to a public sanitary sewer, your Publicly Owned Treatment Works (POTW) is the governmental authority that operates the sanitary sewage treatment plant. The easiest way to identify your POTW operator is to contact whomever bills your facility for sewer service. You must notify your POTW operator prior to discharging any chemical wastes to the sewer, including pharmaceuticals, dental, laboratory, and maintenance wastes, and comply with any conditions they apply to your proposed discharge. See Sewering wastes on page 15.</p> <p>If your facility is not connected to a POTW, see Septic systems on page 15.</p>
Radioactive sources [• Contents]	<p>Manage radioactive sources, such as cesium-137, cobalt-60, and iridium-192, under the requirements of the Minnesota Department of Health Radiation Control rules to maintain security and minimize exposure. See More information on page 19.</p>
Radiological contrast media [• Contents]	<p>Manage unused barium-containing radiological contrast media as D005 toxic hazardous waste unless you evaluate it as non-hazardous. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>Food residuals from patient ingestion of contrast media, such as bowl scrapings, used eating utensils, and napkins, and used contrast media, such as excretions and suction waste, are not considered generated or subject to hazardous waste regulation in Minnesota. See Excretions and suction waste on page 8.</p>
Radiology and radiation therapy equipment [• Contents]	<p>Medical radiology machines and radiation therapy equipment project electromagnetic radiation (such as X-rays and gamma rays) or particle beam radiation (such as protons and neutrons) when in use. Radiation and particle beams can be produced either electrically, through high-voltage tubes, magnetrons, and particle accelerators, or emitted directly from radioactive sources.</p> <p>Once power is disconnected from equipment that produces radiation or particle beams electrically, the components are not radioactive but may be chemically hazardous waste. Equipment manufactured before 1979 may contain oil-filled components, such as transformers or capacitors, that contain polychlorinated biphenyls (PCBs). Manage oil-filled electrical components manufactured prior to 1979 as MN03 PCB hazardous wastes unless you evaluate them as non-hazardous. See MPCA fact sheet #w-hw4-48a, Identifying, Using, and Managing PCBs, at https://www.pca.state.mn.us/sites/default/files/w-hw4-48a.pdf.</p> <p>The radioactive material inside equipment that emits radiation or particle beams directly from radioactive sources remains radioactive after the power is disconnected. See Radioactive sources on page 14.</p> <p>The electronic control systems of all radiology and radiation therapy equipment are electronics hazardous wastes (e-waste) when discarded. See MPCA fact sheet #w-hw4-15, Managing Electronic Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-15.pdf.</p>
Reverse distribution of pharmaceuticals [• Contents]	<p>You may manage pharmaceuticals you do not need through reverse distribution if you follow all the conditions discussed in MPCA fact sheet #w-hw3-36b, Pharmaceutical Reverse Distribution, at https://www.pca.state.mn.us/sites/default/files/w-hw3-36b.pdf.</p> <p>Regardless of whether they are eligible for a rebate or credit, reverse-distributed pharmaceuticals are considered regulated wastes in Minnesota unless they are used for their intended purpose.</p>
RxDestroyer™	<p>See On-site drug destruction products on page 12.</p>
Scattering cremated remains	<p>See Cremated remains on page 5.</p>

Waste/Issue	Regulatory consensus
School medications	See Abandoned medications at schools, shelters, and detention facilities on page 2.
School sharps [• Contents]	Hospitals in Minnesota must accept properly packaged infectious waste, including sharps, from public schools. Hospitals may charge a reasonable fee to accept the waste. See MPCA fact sheet #w-sw4-30, Infectious Waste: Management Guidance for Generators, at https://www.pca.state.mn.us/sites/default/files/w-sw4-30.pdf .
Septic systems [• Contents]	Septic systems are also known as subsurface sewage treatment systems (SSTS), individual sewage treatment systems (ISTS), and community septic systems (CSS). If your facility is not connected to a public sanitary sewer, it is connected to a septic system. No pharmaceuticals, laboratory, dental, or maintenance wastes may be discharged to a septic system; only normal toilet, washing, and food preparation waste. If you perform dental services, see Dental wastewater on page 6.
Sewering wastes [• Contents]	Discharging to a public sanitary sewer is an allowed hazardous waste disposal method in Minnesota if you: <ul style="list-style-type: none"> • First notify the publicly owned treatment works (POTW) operator; and • Comply with any limits or conditions they apply. See Publicly Owned Treatment Works on page 14. POTW operators may limit or prohibit your discharge of any waste, whether hazardous or not. Decisions of the POTW are binding. You must assume any waste you discharge to the sewer is hazardous unless you evaluate it as non-hazardous. Wastes must be evaluated individually prior to sewerage; you may not evaluate your combined wastewater. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf . Do not discharge any waste except normal toilet and sink waste to a septic system. See Septic systems on page 15.
Shelters	See Abandoned medications at schools, shelters, and detention facilities on page 2.
Stains, fixatives, and reagents [• Contents]	Assume all stains, fixatives, reagents, and rinsewater from cleaning these products are hazardous unless you evaluate each separately before combining with other wastes. Rinsing slides or equipment into a drain is regulated disposal subject to the requirements for sewerage wastes. See Sewering wastes on page 15.
Sterilization indicators [• Contents]	Though non-hazardous alternatives are available, some sterilization indicator products still contain lead or barium and are D008 or D005 toxic hazardous wastes. Manage your sterilization indicator wastes as hazardous unless you have evaluated them as non-hazardous. If your sterilization indicator is a tape adhered to a sheet of sterilization wrap, commonly known as 'blue wrap', you may evaluate the combined adhered mass of tape and wrap as a single waste stream. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf .
Suction waste	See Excretions and suction waste on page 8.

Waste/Issue	Regulatory consensus
<p>Surgical/wound prep products</p> <p>[• Contents]</p>	<p>Many surgical and wound prep products consist of a sorbent pad attached to a liquid reservoir. The most common disinfection agents used in these products, such as DuraPrep™ and ChloroPrep™, are alcohol-based and D001 ignitable hazardous wastes when disposed.</p> <p>Manage these products as hazardous wastes unless the sorbent pad is RCRA-dry and the reservoir meets the empty container standard, or unless you have evaluated the waste as non-hazardous. See Free liquids and RCRA-dry sorbents on page 9 and Empty containers on page 7.</p>
<p>Training</p> <p>[• Contents]</p>	<p>Training is the best way for healthcare providers to minimize improperly handled hazardous waste and liability. Train all staff on how to recognize and properly manage the hazardous wastes they may generate or handle in their jobs.</p> <p>However, only certain staff at healthcare facilities are required to be trained under the hazardous waste regulations. See MPCA factsheets:</p> <ul style="list-style-type: none"> • #w-hw1-09a, Employee Training for Very Small Quantity Generators, at https://www.pca.state.mn.us/sites/default/files/w-hw1-09a.pdf • #w-hw1-09b, Employee Training for Small Quantity Generators, at https://www.pca.state.mn.us/sites/default/files/w-hw1-09b.pdf • #w-hw1-09c, Employee Training for Large Quantity Generators, at https://www.pca.state.mn.us/sites/default/files/w-hw1-09c.pdf <p>To determine your hazardous waste generator size, see MPCA fact sheet #w-hw1-02, Determine Generator Size, at https://www.pca.state.mn.us/sites/default/files/w-hw1-02.pdf.</p>
<p>Treating chemical waste at your site</p> <p>[• Contents]</p>	<p>You may use products such as Aldex™, ChemGon™, or others to treat your dental, laboratory, maintenance, and other chemical wastes at your site, but you must manage the resulting mixture as a fully regulated hazardous waste unless you have evaluated the mixture as non-hazardous. Do not place it in your normal trash without evaluation. See MPCA fact sheet #w-hw1-01, Evaluate Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf.</p> <p>All treatment must be performed in a closed container. Count all hazardous waste treated on site toward your hazardous waste generator size and include it in your annual hazardous waste license application.</p>
<p>Treating infectious waste at your site</p> <p>[• Contents]</p>	<p>You may treat your infectious waste at your site without approval if the waste does not contain sharps. You must verify it is no longer infectious before placing it in normal trash.</p> <p>If your infectious waste contains sharps, you may treat it on-site but must either:</p> <ul style="list-style-type: none"> • use a treatment system approved by the MPCA. See MPCA fact sheet #w-sw4-34, Infectious Waste: Approved Waste Management Vendors and Systems in Minnesota, at https://www.pca.state.mn.us/sites/default/files/w-sw4-34.pdf; or • continue to manage the waste after treatment under the full infectious waste requirements. See MPCA fact sheet #w-sw4-30, Infectious Waste: Management Guidance for Generators, at https://www.pca.state.mn.us/sites/default/files/w-sw4-30.pdf.

Waste/Issue	Regulatory consensus
Treating pharmaceutical waste at your site	<p>You may treat your pharmaceutical waste at your site without approval from the MPCA or Metro County, but you must manage the resulting mixture as a fully regulated hazardous waste unless you have evaluated your waste mixture as non-hazardous. Do not place it in your normal trash without evaluation. See MPCA fact sheet #w-hw4-45a, Evaluating Pharmaceutical Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45a.pdf.</p> <p>All treatment must be performed in a closed container. Count all hazardous waste treated on site towards your hazardous waste generator size and include it in your annual hazardous waste license application.</p> <p>Caution: Most products marketed for on-site treatment of pharmaceutical waste are intended for controlled substance and legend (prescription) drug destruction and do not render hazardous waste to be non-hazardous. See Destruction versus disposal on page 6 and On-site drug destruction products on page 12.</p>
[• Contents]	
Unsorted pharmaceuticals	<p>You may co-mingle product and waste pharmaceuticals in a common container for later sorting. The entire contents of the container are considered waste until the products and wastes are sorted back out. Common containers must meet all hazardous waste container requirements unless you have evaluated the wastes as non-hazardous. See MPCA fact sheet #w-hw1-05, Accumulate Hazardous Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw1-05.pdf.</p> <p>Mixing free liquid acute hazardous waste pharmaceuticals with non-acute hazardous wastes will result in the entire mixture being regulated as an acute hazardous waste. Assume spiked intravenous (IV) bags or vials with pierced diaphragms will release free liquids unless individually shown to be leak-free. You may use inner containers or liquid-tight bags to segregate acute from non-acute hazardous wastes to prevent mixing.</p>
[• Contents]	
Vaccines	<p>Vaccines are subject to the same hazardous waste requirements and eligible for the same allowances as all other pharmaceuticals, including reverse distribution. See Pharmaceutical waste assumption on page 13, Empty containers on page 7 and Reverse distribution of pharmaceuticals on page 14.</p> <p>Live and attenuated vaccines may also be infectious wastes or dual waste. See Infectious waste on page 10 and Dual waste on page 6.</p>
[• Contents]	
Vaping liquid	<p>Vaping liquid, the solution used in electronic cigarettes is also known as e-liquid, e-juice, e-fluid, or liquid nicotine. Assume vaping liquid contains nicotine and is a P075 acute hazardous waste unless you have evaluated it as non-hazardous. See MPCA fact sheet #w-hw4-65, Vaping Liquids, E-cigarettes, and Nicotine Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw4-65.pdf.</p>
[• Contents]	
Veterinary pharmaceuticals	<p>Veterinary pharmaceuticals are subject to the same hazardous waste requirements and eligible for the same allowances as human pharmaceuticals, including reverse distribution. See Pharmaceutical waste assumption on page 13, Empty containers on page 7 and Reverse distribution of pharmaceuticals on page 14.</p>
[• Contents]	
Voluntarily surrendered drugs	<p>See Abandoned medications at schools, shelters, and detention facilities on page 2.</p>

Waste/Issue	Regulatory consensus
Waste in used syringes	<p>Pharmaceuticals remaining in a used syringe are considered used and therefore not P-Listed or U-Listed wastes. Pharmaceuticals remaining in a used syringe must be assumed to be characteristic hazardous wastes unless evaluated as non-hazardous. See MPCA fact sheets:</p> <ul style="list-style-type: none"> • #w-hw2-02, P List of Acute Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf • #w-hw2-03, U List of Hazardous Wastes, at https://www.pca.state.mn.us/sites/default/files/w-hw2-03.pdf • #w-hw2-04, Hazardous Waste Characteristics, at https://www.pca.state.mn.us/sites/default/files/w-hw2-04.pdf <p>Used syringes are considered empty containers and not regulated as hazardous wastes if the plunger is fully depressed, regardless of any fluid in the needle or hub.</p> <p>For the purpose of this interpretation, 'syringes' include any sharps-containing items, including manual injection syringes, injection 'pens,' and assembled injectors, such as CarpuJect™, StatDose™, and similar products, carpules, removable inhaler cartridges, and similar portions of a used syringe separated before disposal. Intravenous (IV) administration sets, oral, or rectal syringes are excluded from this definition of 'syringes'. See Needle-less syringe connectors on page 11.</p>
[• Contents]	
Wasting	<p>Squirting or pouring pharmaceuticals into a drain or into sorbents disposed into normal trash or infectious waste, called wasting, is regulated disposal.</p> <p>Wasting into a drain is allowed in Minnesota only if certain conditions are met. See Sewering wastes on page 15.</p> <p>Wasting into sorbents disposed into normal trash or infectious waste is allowed only if the pharmaceuticals have been evaluated as non-hazardous. See MPCA fact sheet #w-hw4-45a, Evaluating Pharmaceutical Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw4-45a.pdf.</p>
[• Contents]	
X-ray machines	See Radiology and radiation therapy equipment on page 14.
X-ray film & plates	<p>Film: You may assume X-ray film manufactured after 1976 is non-hazardous for silver, but are still encouraged to recycle all waste X-ray film. See MPCA fact sheet #w-hw4-46, Managing Photographic and X-ray Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw4-46.pdf.</p> <p>Reusable plates: Many reusable X-ray plates used with digital or computed radiography (CR) systems, known as photostimulable phosphor (PSP) plates, contain barium. Assume your PSP plates are D005 toxic hazardous waste when discarded, unless you evaluate them as non-hazardous. If you ship them to the manufacturer for refurbishment, do not count them towards your hazardous waste generator size or report them to the MPCA or Metro County.</p>
[• Contents]	
X-ray shielding and packaging	<p>X-ray shielding, personal protective equipment (PPE), and film packaging commonly contain lead, either in foil or powder form.</p> <p>Lead metal sheets and foil are exempt from hazardous waste regulation if they are recycled as scrap metal. See MPCA fact sheet #w-hw4-27, Hazardous Scrap Metal, at https://www.pca.state.mn.us/sites/default/files/w-hw4-27.pdf.</p> <p>Glass, rubber, plastic, and other materials impregnated with lead powder or lead compounds are not scrap metal and are D008 toxic hazardous wastes when recycled or discarded. If recycled, ship them to the recycling facility using a Uniform Hazardous Waste Manifest. See MPCA fact sheet #w-hw2-42, Recycling Hazardous Waste, at https://www.pca.state.mn.us/sites/default/files/w-hw2-42.pdf.</p>
[• Contents]	

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Statutes, Chapters §115A and §116, and Minnesota Rules, Chapters 7035 and 7045, and incorporate regulatory interpretation decisions made by the MPCA on July 2, 2004; October 17, 2007; October 18, 2007; September 9, 2008; October 27, 2008; November 28, 2008; May 21, 2010; April 13, 2011; May 6, 2011; August 9, 2011; and January 25, 2012; May 8, 2015; May 9, 2016; October 12, 2016; and December 14, 2016. Visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs> to review the Minnesota Statutes and Rules directly.

Contact your Metro County or the MPCA with your questions. The MPCA's Small Business Environmental Assistance Program can also provide free, confidential regulatory compliance assistance. The Minnesota Technical Assistance Program (MnTAP) can help you reduce your waste generation and risk. Report all hazardous waste incidents such as spills to the Minnesota Duty Officer immediately.

Metro County Hazardous Waste Offices

Anoka	763-422-7093
.....	https://www.anokacounty.us/
Carver	952-361-1800
.....	http://www.co.carver.mn.us/
Dakota	952-891-7557
.....	https://www.co.dakota.mn.us/
Hennepin	612-348-3777
.....	http://www.hennepin.us/
Ramsey	651-266-1199
.....	https://www.ramseycounty.us/
Scott	952-496-8177
.....	http://www.scottcountymn.gov/
Washington	651-430-6655
.....	https://www.co.washington.mn.us/

U.S. Drug Enforcement Administration

Toll free	1-800-882-9539
Minneapolis Field Office	612-344-4143
.....	https://www.deadiversion.usdoj.gov/

Minnesota Pollution Control Agency

Toll free (all offices)	1-800-657-3864
All offices	651-296-6300
.....	https://www.pca.state.mn.us/

Minnesota Duty Officer

Toll free	1-800-422-0798
Metro	651-649-5451

Small Business Environmental Assistance Program

Toll free	1-800-657-3938
Metro	651-282-6143
.....	https://www.pca.state.mn.us/sbeap/

Minnesota Technical Assistance Program

Toll free	1-800-247-0015
Metro	612-624-1300
.....	http://www.mntap.umn.edu

Minnesota Board of Pharmacy

Statewide	651-201-2825
.....	https://mn.gov/boards/pharmacy/

Minnesota Department of Health

Toll free	1-88-345-0823
Metro	651-201-5000
.....	http://www.health.state.mn.us/