

Why should I use a Solidifier?

A solidifier should be used because it is the safest method developed to date for the transport and management of body fluid waste. According to the AORN, “The use of solidifiers greatly reduces the risk of exposure to blood and contaminated bodily fluids.”¹ Ultimately, the use of a solidifying agent is a decision about two issues: hospital costs and human safety. You can pour it or cap the container if your state laws don’t prevent you from doing so; but consider the cost-effectiveness of solidifiers in preventing liability by exposing workers or civilians to bloodborne pathogens, costs that come in both financial and human terms.

Why not pour waste fluid into the hoppers?

Pouring of suction canister contents into hoppers or drains may be acceptable in some municipalities, however, state and local regulations may dictate whether or not this practice is acceptable or the volume allowable for discharge into the sanitary sewer. Even if allowed, the question is whether pouring suction canister contents (carefully or not) into a sanitary sewer meets the goal of the Bloodborne Pathogens Standard, which is to “eliminate occupational exposure or reduce it to its lowest feasible extent.” OSHA makes their position clear in a February 2001 interpretation letter stating, “where engineering and work practices will reduce employee exposure either by removing, eliminating or isolating the hazard, they must be used.”² This would include the use of existing, feasible, commercially-available engineering controls for pouring blood or other potentially infectious materials from suction canisters in order to reduce or eliminate splashes and splatters to workers, which may result in occupational exposure to bloodborne pathogens.

Why not just cap the canisters and place them in the trash?

In hospitals where pouring is not mandated, the caps of the suction canisters may be secured with the canister contents still in a fluid state, after which the fluid-filled canisters should be placed in a red biohazard bag for final disposal. Capping free flowing fluids in suction canisters and placing them in a red biohazard bag is an acceptable practice under the Bloodborne Pathogens Standard but only if the suction canister is:

1. **Closable** – Capable of being capped and **is** capped.
2. **Constructed** to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping.
3. **Labeled or color-coded to signal contents** in accordance with paragraph (g)(1)(i) of the Bloodborne Pathogens Standard.

This practice, however, creates risks due to bags being dropped and canisters leaking or breaking. Further, Department of Transportation (DOT) regulations mandate that all regulated medical waste fluids leaving the facility be packaged to contain sufficient absorbent material to absorb the entire amount of liquid in the event of an unintentional release. Thus, solidifiers are an acceptable method of meeting this requirement.

The issue for many is what happens in reality. We’ve all heard stories about or seen blood dripping from canister filled red bags or white bags containing dripping canisters waiting to be red bagged. Also, every time your staff handles liquid blood or other potentially infectious material or has to do clean-up from a spill, a potential exposure may occur. It takes time, staff and supplies for clean-up; and more supplies, time and staff for repackaging. If you take infection control seriously at your facility, solidifiers for suction canister contents may be a rational choice.

How long does it take for the DeRoyal Solidifier to completely solidify liquids?

Typically, the solidifying process occurs in less than 2 minutes. The ingredients of the Solidifier solidify blood and body fluids very, very quickly. In fact, our product is one of the fastest on the market. With that said, the actual length of time to solidify the liquids will vary depending on the temperature, density and viscosity of the liquids.

How much weight does the Solidifier add to the container by using it?

The only weight added to the canister by utilizing the DeRoyal Solidifier is the actual amount of solidifier introduced into the canister. For instance, 1.5 ounces of DeRoyal Solidifier will solidify the contents of one 1500cc canister. Hence, the amount of weight added to that canister is 1.5 ounces of Solidifier powder. No chemical or physical reaction occurs when the Solidifier is added that would make the canister weigh more or less.

Does the container need to be shaken in order to activate the Solidifier?

No. Once in application, the DeRoyal Solidifier ingredients mix homogeneously (top down and bottom up) with the liquid waste to solidify quickly and evenly.

Does the DeRoyal Solidifier contain a sanitizing agent?

The DeRoyal Solidifier does not contain a sanitizing agent. Companies that do provide a sanitizing ingredient claim a savings in the use of their products due to the significantly higher disposal costs for “red bag” disposal versus “white bag” disposal. Factually, this involves many regulatory hurdles and requires approval from multiple agencies such as federal EPA, state agencies and landfill owners/operators. Furthermore, EPA has raised questions about the efficacy of such products with large volumes of fluid and blood clots.

The Association of periOperative Registered Nurses (AORN) warns that “...few solidifiers are approved as complete sanitizers and local and state regulations may vary on the “white bagging” of such waste.”³ Less than 10% of those facilities that utilize a Solidifier use one with a sanitizing ingredient as a result of this dynamic along with EPA stipulations. It is important that a facility considering the use of a “sanitizing” solidifier seek the appropriate approvals from federal, state and local authorities.

Is the DeRoyal Solidifier environmentally safe?

Yes. The DeRoyal Solidifier is not regulated as a hazardous material. Consult federal, state and local guidelines for disposal concerns.

Is the DeRoyal Solidifier toxic?

No. DeRoyal’s Solidifier is non-toxic if ingested, however, as in any instance of non-food consumption, seek medical attention in the event of any adverse symptoms. The Material Safety Data Sheet (MSDS) is available online and is included with every case of product shipped.

Is the DeRoyal Solidifier user friendly?

Yes. DeRoyal’s polymer formula is more granular and generates less “dust” when being handled. The formula gels the liquid waste and does not produce the powder granules associated with the solidifying action of some other brands.

References

1. Fogg, Dorothy M., RN, MA. “Critical Issues,” AORN Journal, October 2000.
2. Standard Interpretation, “Use of engineering controls and work practice controls during the pouring of blood or OPIM,” 2001.
3. “Surgical Safety in the OR,” CE Course Study Guide, AORN 2001, Education Design and DeRoyal.