

FAQ

Frequently Asked Questions (and Answers!)



Spill Absorbents

What are the basic kinds of spill absorbent products? What brands are most commonly used by PennDOT?

There are two basic kinds of spill absorbents. The type most commonly used by PennDOT is a clay-based product that absorbs all types of spills, including water. Clay-based spill absorbents have been in widespread use for many years. Recently, an alternative type of spill absorbent has been introduced that absorbs petroleum-based spills but does not absorb water. For certain uses, there can be significant advantages of non-water absorbing products over water-absorbing products. We want you to be aware of these newer products.



You may be familiar with clay-based, water absorbing products such as **Speedy Dry** and **Oil Dry**. These are commonly used throughout PennDOT. A newer type of water absorbing product is **StarDust Super Absorbent**, which is used in District 8.



Two non-water absorbing products that are new to PennDOT are **Spill Shark** and **Absorbent W**. These can be used to clean up petroleum spills. If a petroleum spill occurs where water is present, such as on a rain-soaked road or on a pond, **Spill Shark** and **Absorbent W** will absorb the spill but not the water.

There can be significant advantages of non-water absorbing over water absorbing products. When water is present, a non-water absorbent will produce less material to pick up and dispose. Because only the spill is absorbed, less product is needed to do the job. Because less product is needed, and there is less material to dispose, less material handling is required, less storage space is needed, and disposal costs are lower.



Note. If you look at product literature you may see the terms *hydrophilic* and *hydrophobic* used in reference to these products. Products that absorb water are called *hydrophilic* (literally, *hydro-water philic-loving*). Products that do not absorb water are called *hydrophobic* (literally, *hydro-water phobic-fearing*).

Where can I obtain a Material Safety Data Sheet (MSDS) for spill absorbent products?

Your District Quality Coordinator can provide these for the **Spill Shark**, **Absorbent W**, and **StarDust Super Absorbent** products.

Frequently Asked Questions

What are some advantages of using non-water absorbing products versus water-absorbing clay-based products?

Consider these comparisons:

Non-Water Absorbing Products

Work quickly
Do not absorb water, so less material for disposal
Easier to handle
Disposal requires less landfill space
Less disposal volume = less disposal cost

VS.

Water Absorbing Clay-Based Products

Work less quickly
Absorb water, producing more bulk and material for disposal
Harder to handle
Disposal requires more landfill space
More disposal volume = more disposal cost

In addition, **StarDust Super Absorbent** is a water-absorbing product but is not clay-based (it is made of alumina silicate). It is a granular powder that works quickly to absorb spills. It can be reused several times until completely saturated and ready for disposal.

If we use Spill Shark or another non-water absorbing product, should we also have water-absorbing products available?

Because you may have spills to clean up that are non-petroleum-based, such as anti-freeze, you should also have a water-absorbing product available. Water-absorbing products will clean up almost any type of spill.

Lehigh County uses **Speedy Dry** for indoor spills (such as garages), because this clay-based product will absorb any type of liquid and, generally, anything that spills in a garage must be cleaned up. Lehigh County also uses **Spill Shark** for outdoor spills, saving money on disposal costs (see Question 1 above). By choosing the right product for the job you can be both cost-effective and environmentally responsible.

Having more than one type of spill absorbent available seems complicated. How are we supposed to know which one to use for a given spill?

Your District Quality Coordinator can provide information on product specifications. Your Assistant County Maintenance Manager, District Equipment Manager, or foreman can answer any questions you have about local procedures for proper use and disposal of spill absorbents.

Are Spill Shark and Absorbent W environmentally-friendly products? Can they help us to achieve SEMP goals?

The manufacturers of **Spill Shark** and **Absorbent W** state that their products safely remove petroleum-based spills from the environment. **Absorbent W** is made from recycled cellulose (paper). The MSDS's for these products, available from your District Quality Coordinator, provide additional technical information. Once used, of course, these products assume some of the hazards posed by the materials absorbed and must be treated accordingly.

In line with SEMP goals, proper use of these products generally produces less waste material for disposal. This saves on disposal costs and requires less landfill space. Used **Spill Shark** and **Absorbent W** can also be incinerated.



StarDust

Spill Shark

Absorbent W

Frequently Asked Questions

Are spill absorbent products on state contract and/or Bulletin 15?

No, spill absorbents are not under state contract or listed in Bulletin 15. This is not necessary. Your county's purchasing agent can buy them from their distributors.

How do I get Spill Shark, Absorbent W, and StarDust Super Absorbent?

Your county's purchasing agent can buy them from their distributors. These are:

<u>Spill Shark</u> Jim Conway Chemsearch 7 West Street Walpole, MA 02081 508-668-0157 jconway@nch.com	<u>Absorbent W</u> New Pig Corporation One Pork Avenue Tipton, PA 16684-9987 FID # 23-2363423 SAP # 178097 800-468-4647 www.newpig.com Technical Education Manager: Karen	<u>StarDust Super Absorbent</u> Steve Hower 584 Grandview Drive Lewisberry, PA 17339 717-648-2484
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How much do spill absorbent products cost? Are discounts available for bulk purchases?

Your District Quality Coordinator or County Purchasing Agent can provide cost information for **Spill Shark**, **Absorbent W**, and **StarDust Super Absorbent**. When purchased in sufficient quantities, discounts are available.

Non-water absorbing products are generally more expensive than water absorbing clay-based products. Approximate costs based on bulk purchases are:

<u>Non-Water Absorbing Products</u> Spill Shark: \$10.00/lb Absorbent W: \$1.45/lb	<u>Water Absorbing Products</u> Speedy Dry: about \$0.12/lb Oil Dry: about \$0.12/lb StarDust Super Absorbent: \$1.50/lb
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Can we really expect to save money using alternative spill absorbent products? Spill Shark and other absorbents are more expensive than Speedy Dry and Oil Dry (and other clay-based products).

You can save money by using the right product for the job. In addition to purchase price, you should consider disposal costs of used products. It's true that non-water absorbing products such as **Spill Shark** and **Absorbent W** are more expensive to purchase than water absorbing products such as **Speedy Dry** and **Oil Dry**. However, for spills that occur in the field where water is present (e.g., on wet roads) you will typically use less product and have much less material for disposal if you use a non-water absorbing product rather than a water absorbing product. Plus, clean-up will be easier and faster.

Lehigh County's experience indicates that you will have up to 10 times less material for disposal if you use **Spill Shark** rather than **Speedy Dry** to clean up spills in the field. This adds up to significant cost savings for disposal that help offset the higher cost of the product.

Can I get free samples of alternative spill absorbent products to try before purchasing?

Your District Quality Coordinator or County Purchasing Agent can provide you with samples of **Spill Shark**, **Absorbent W**, and **StarDust Super Absorbent**.

Once you have tried a product, please tell your DQC what you think and whether your county plans to adopt the product for regular use. This follow-through feedback will help PennDOT track and evaluate the effectiveness of these innovations in spill absorbents.

Frequently Asked Questions

Do we have to use Spill Shark, Absorbent W, or StarDust Super Absorbent? I found a similar product that is cheaper and seems to work just as well.

There are other spill absorbing products on the market besides those previously mentioned. In addition to loose absorbents, other forms of absorbents are available (mats, pads, socks, pillows). You may find that other products work best for a given application. If so, please share this information with your DQC. If there is an alternative you prefer, it will be very helpful if you have also tried **Spill Shark**, **Absorbent W**, and/or **StarDust Super Absorbent**. Your DQC will want to know how your preferred alternative compares to one or more of these.

Are Spill Shark, Absorbent W, and StarDust Super Absorbent used by other transportation departments?

Yes, because these products are effective and environmentally-friendly, their use by transportation departments and other agencies with environmental responsibilities is growing. Your county's Purchasing Agent can obtain current information about other users from the product distributor.