Note: This list is intended to supplement the <u>Approved Drilling and Filling Sealing Products List including Heat Exchange Drillhole Products List</u> and the <u>National Sanitation Foundation (NSF) Drinking Water Treatment Chemicals NSF/ANSI/CAN 60-Health Effects</u> List . Products on both lists are approved for use in Horizontal Directional Drilling in addition to the products listed below.

Wisconsin Pre-Approved HDD Drilling Fluid Products:

Approval	Manufacturer or	Product	Material(s)	Uses	Special
Date	Distributor	Name			Conditions
6/26/23	AMC	Xan Bore	Xanthan Gum	Viscosofier	
6/20/22	Baroid Fluid	Polyselect	Proprietary	Lost circulation	
	Services/Haliburton	Power Swell	ingredients	material	
6/20/22	Bentonite Performance Materials/ Halliburton	Polyselect Power Xan	Xanthan gum	Viscosifier	
6/26/23	Cetco	Clay Cutter	Proprietary ingredients	Clay Stabilizer	Use with caution near surface water due to unknown aquatic toxicity. Max usage 1 gal/1000 gallons or 1.01 mg/l
6/20/22	Cetco	Drill-terge	Non-ionic surfactant	Drilling detergent/wetting agent	
6/20/22	Cetco	Rel-Pac Xtra- low	Polyanionic cellulose	Filtration control	
6/20/22	Cetco	Suspend-IT	Polysaccharid gum	Cutting transport	
6/20/22	DCS Fluid Solutions	Clay Breaker	Quaternary Ammonium Compound	Clay Stabilizer	Requires project- specific pre- approval
6/20/22	DCS Fluid Solutions	Polymud	Mineral Oil	Viscosofier	Requires project- specific pre- approval
6/20/22	DCS Fluid Solutions	Sandmaster	Xanthan gum	Viscosofier	
6/20/22	DCS Fluid Solutions	SealPac HV	Polysaccharide	Fluid Loss Reduction	
6/20/22	DCS Fluid Solutions	TorqBreaker	Quaternary Ammonium	Surfactant	Requires project-

Approval Date	Manufacturer or Distributor	Product Name	Material(s)	Uses	Special Conditions
			Alkyl dimethyl ammonium chloride Ethanolamine		specific pre- approval
6/20/22	Halliburton Energy Services	Polyselect DMD Soda Ash	sodium carbonate	Buffer	
6/20/22	Lost Circulation Specialists, Inc.	Magna Fiber	Mineral fiber	Lost circulation material	
6/26/23	M-I Swaco	Super Vis	Xanthan Gum	Viscosifier	
10/20/22	Northstar Fluid Solutions	Lubra-Star Plus	Proprietary, derived from oleo chemicals	Water soluble lubricant	Use product purchased after 10/15/22
6/20/22	Northstar Fluid Solutions	Star-Plex	Poly Hydroxy Silicate, Proprietary Mg, Na, Al compounds	Viscosofier	
6/26/23	Right Turn Supply	Det Con 1	Sodium Dodecylbenzene Sulfonate, Tetrapotassium Pyrophosphate, Cocomide DEA, Diethanolomide	Drilling Mud Detergent	Maximum usage rate 1.04 mg/L or 1 gallon/1000 gallons
6/26/23	Right Turn Supply	Sand Grenade	Hydrocarbons	Lubricant, Stabilizer	Max usage rate 2 mg/l
6/26/23	Wyo-Ben	Torqmaster	Cocamide dea, proprietary	Surfactant	Requires project- specific pre- approval

## Last Update 06/26/2023

For review of products not on the pre-approved list, please submit the material safety data sheet and product sheets used for marketing to <u>Samantha Whitens</u>, Office of Energy Storm Water Engineer or <u>Amy Minser</u>, Statewide Storm Water Engineer. The safety data sheet or supplementary material must disclose the presence of any ingredients listed on Table 1 in s. <u>NR 140.10</u>, Wis. Adm. Code and <u>Chemical List | Wisconsin Department of Health Services.</u> Section NR 283.55, Wis. Adm. Code allows the department to handle trade secrets as confidential information. If information is considered a trade secret, confidential information should be provided in a separate document, clearly marked as confidential, and a request for confidentially should be provided as required in s. <u>NR 2.19</u>, Wis. Adm. Code. Disclosure of the information to the Wisconsin Department of Health Toxicologist may be required as part of the Department of Natural Resources review process.