

Whitney Water Center Learning from Home

Episode 24: Attract and Repel

Explanation

The fine white powder, sodium polyacrylate, is a *hydrophilic* substance, meaning it is water loving. The sodium polyacrylate molecule is pulled apart by the charge of the water molecule, allowing the two materials to mix. It has a unique ability to hold on to water and it is used in diapers to absorb fluids.

The blue sand repels water because it has a *hydrophobic* coating (trimethylsilanol). Something that is hydrophobic is water repelling, the two materials will not mix or dissolve. This leaves the surface tension in place which is why it looks like there is a silver layer around the sand.

Resources

Sodium polyacrylate is available through many online retailers. It is also known as Instant Snow.

Magic Sand is also available online, Education Innovations is a reliable supplier. It is not the same as kinetic sand.

Link to video

Facebook: <https://www.facebook.com/watch/?v=2874417939446985>

YouTube: <https://youtu.be/S8-PLIs4vHY>