

# Pollen Sponge to Clean Oil Spills

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A team of researchers have created an eco-friendly sponge comprised of pollen.

The team led from Nanyang Technological University (NTU) in Singapore believe that this material could be used to tackle marine oil spills as an alternative to chemical dispersants, which can exacerbate damage to marine habitats according to [an article](#) on The Engineer.

The sponge is made up of sunflower pollen with an added layer of stearic acid that enables the sponge to specifically target oil, thus making it hydrophobic.

To test its durability, the team soaked the sponge in silicone oil before squeezing the sponge to extract the oil out again. The team found that they were able to repeat this process with the sponge for ten cycles.

In addition, absorption tests were carried out including other solvents such as gasoline and pump oil. The results showed that the sponge had an absorption capacity that was comparable to commercial absorbents.

“Pollen that is not used for plant pollination is often considered biological waste,” said Cho Nam-Joon, project leader and professor at NTU’s School of Materials Science and Engineering.

“Through our work, we try to find new uses for this ‘waste’ and turn it into a natural resource that is renewable, affordable, and biodegradable.”

Looking ahead, Cho Nam-Joon and his team will look to scale up this project with the aim of testing the sponge in real-life surroundings through working with non-governmental organisations.

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