Temperature Insulating Solution

Aldahmani, Noora (School: Dubai National School - Al Barsha)
Alsuwaidi, Shaikha (School: Dubai National School - Al Barsha)

Studies show that in the US alone, around 742 children have died due to paediatric vehicular heatstrokes since 1998. Around 42 of the deaths occurred in 2017, the highest temperature being 45°C (114°F) killed a 3 year old. Heat also causes engine failure in heavy machinery, which might result in fires and explosions. Our goal is to create a nonflammable, heat-insulating aqueous solution that has various uses. Due to the threatening dangers that accompany high temperatures, our target is predominantly those located in places similar to the Middle East and Africa. Our aim is to create a compound that's capable of having both endothermic and exothermic reactions without harming either the user or the environment. In the UAE, our leaders are looking to ensure a sustainable lifestyle for citizens. By using this solution, the risk of fires will be lower, as our number one source of renewable energy is the Sun. Since 2013, eight machineries have exploded due to overheated engines.

Awards Won: