

## Activity Sheet 4



Dear scientists,

At Synthomer, we make important ingredients that go on to be used in materials that need to be stretchy, strong, and bendy. Rubber gloves, food packaging, and glue are all examples of where our ingredients are used.

We want our ingredients to be more sustainable, so when we make them, we think about (i) how to mix them, (ii) how to use less heat and less material, (iii) using ingredients which are safe for people and the environment, and (iv) ensuring our ingredients are stretchy enough for our customers to use in their products.

We would like your help to improve the way we make our ingredients the best they can be. Please can you help us solve these problems:

We need to mix ingredients that don't stay mixed for long naturally. We've heard using an emulsifier will help them stay mixed for longer. Can you find out if using an emulsifier makes a difference?

We want to test our ingredients to make sure microbes cannot grow inside them. Can you recommend a way for us to do this?

A customer wants to use our important ingredient to make protective gloves which are stretchy. Can you test some different materials to see which one is the most stretchy, and how all the other materials compare?

We look forward to hearing from you with the results from your investigations.

Yours sincerely

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