

Can the Eco-Friendly Detergent do Well Against the Store and Name a brand to fight the super stain?

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The experiment's purpose is to see if the Eco friendly detergent cleans as well as more popular brands. Basically I put this special liquid on a clean rag and put it in the washing machine, and add detergent. Afterwards I gathered all the results and took notes.

Introduction

Saving the environment is an important thing in the current age. You can now help by using a good detergent. This is an important topic because popular brands have a lot of bad phosphates and pollute the environment. Environmentally friendly detergent does not contain harmful phosphates, but do they clean as well? That will be put to the test!

Background Research

Now we are going to talk about cotton, the main substance used in my rag's

Cotton is a shrub that grows around tropical and subtropical places. Some places are the Americas, Africa, Egypt, and India. The greatest amount of cotton types are found in Mexico.

Cotton is a fluffy, smooth fiber that grows in a protective covering. The fiber is almost entirely made up of cellulose. Cotton bolls (protective covering) may also help spread out seeds

Cotton was produced by Chinese people during the Han Dynasty and used for sale and clothing.

Laundry Detergent

The earliest washing machines needed soap, clothes, and water to operate. Over time, machines became more automated first with electromechanical controllers and now there are electronic controllers.

Front-loading machines can get up to boiling temperatures! Temperature helps the

detergent clean tremendously. Washing machines rinse after the main wash to remove all the rest of the detergent. Modern washing machines use less water than others but had caused problems with bad rinsing.

Laundry Detergent

Laundry detergent and washing powder are a kind of detergent used for making laundry clean. Powdered detergents are sold more compared to liquid. Phosphates detergent became a concern in the 1950s and were banned years later. Phosphates make laundry clean but were a problem that caused eutrophication. Eutrophication is excessive nutrient concentration in a lake or other body of water, mostly due to runoff from the land, resulting in dense plant growth and animal death due to a lack of oxygen.

Experiment

My independent variables are Water wash, Open nature, Clear And Free Target Brand, Tide Pod.

My dependent variables are Washing machine, white wash cloths, and the stain afterwards.

My Hypothesis is that I think that the Eco Friendly Detergent will be better than Clear and free and water wash but will not beat the Tide Pod.

My constant is the washing machine.

My uncontrollable factor is how well each detergent works

Procedure

Materials:

super stain (consisting of Welch's Grape Juice and Trader Joes dark roast black coffee)

4 100% cotton clean rags

Free and Clear Target brand detergent

One Tide Pod

Open nature lavender branded

LG washing machine

LG dryer

I made the super stains using three tablespoons of Welch's grape juice and three tablespoons of the dark roast. I took a fresh new rag and spoon one tablespoon of some super stain on it. I left it for 15 minutes to set. I grabbed one of the detergents and put it in the detergent compartment for the detergent and in the washer for the pod. I used one serving of each detergent and a Tide Pod. I turned on the washing machine and dialed it to speed the cycle on warm water. I used the LG dryer on the speed cycle. I inspected the rag and wrote down thoughts and observations to answer the main question. I repeated the procedure for each of the following different rags but changed the previous steps for each detergent and water wash.

The tide pod seemed to do worst out of all with water wash in 3rd, Then eco-friendly, finishing out with store-brand

Something that may have affected the water wash was leftover soap.

A big thing that may have affected my data was the wash cycle I used.

Something that could have affected my data was the water temperature because some may wash better at other water temperatures.

Instead of a full cycle, I used a quick wash cycle, which may have affected some detergents because they needed a full wash. My original plan was to use Method Mango scented detergent but instead, I used Open Nature Lavender scented detergent.

My hypothesis was surprisingly incorrect! The eco-friendly brand seemed to work better than I thought on lightning and cleaning the stain! If I were to do this differently I would change the temperature to the recommended amount, and clean the soap dispenser. I would carry on the research by testing different brands of Eco-Friendly detergents. This important for the world because people need to use Eco-Friendly detergent to keep the environment safe, but now its proved that it cleans very well!

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