

## **ABSTRACT**

Drinks that have striking colors or various colors will certainly attract the attention of consumers. However, the striking color does not guarantee the safety of the food. The colors in the drinks that we consume can come from natural ingredients or man-made ingredients. Often when a producer has difficulty using natural ingredients as a drink coloring, the beverage manufacturer will choose to use artificial coloring. Another reason beverage manufacturers use artificial coloring agents in their beverage products is because it is easier, more practical, has more color choices, more striking colors, or perhaps relatively inexpensive. The development of science and technology has led to enormous changes in terms of food processing. At present, many ingredients are added to food and drinks for various purposes. An example of a banned beverage coloring agent that is often used by rogue producers is Rhodamine B Rhodamin B is a synthetic dye used in the textile industry. Abuse of rhodamine B is commonly found in foods and beverages such as cendol ice, syrup, candy, cotton sugar, tomato sauce, cakes, crackers and market snacks. Development of a System for Detection of Dyes in Syrup Using the TCS3200 Color Sensor The development of this system aims to detect the levels of dyes in syrup based on the color sensor. The results of the experiment on the detection of rhodamine levels with 16 different samples. And obtained an accuracy of 91.25%.

Keywords: Dye, Rhodamin B, Detection Too