Test Kit for Synthetic Dye (Dye-Prohibited Food)

Self Food Quality Care

Synthetic dye is permitted in purpose of making food colorful attractive or replace natural color which is pale during production process. However, it might be used in some kinds of food to conceal change of food quality such as dried shrimp, salted beef, and fish. It also be used to mislead that such food made from good material to save production cost such as shrimp crisps and noodle, etc.

Ministry of Public Health issued Act No.66 (B.E.2525) specified types of dye-prohibited food such as fresh fruit, preserved fruit and vegetable, dried fish, dried shrimp, fermented sausage, sausage, and meatball. At present, synthetic dye has still been found in many kinds of food. Therefore, the Department of Medical Sciences has developed testing kit for synthetic dye in food, which can be quickly used, has high accuracy to expand the consumer protection network.

Health Impact

Synthetic dye which is regularly consumed, can be absorbed through mucosal wall of gastrointestinal tract system, and can disturb secretion of enzyme for digestion, consequently, cause anorexia and stunt growth.

Target Sample

Meatball, fermented sausage, seasoned meat, noodles, sausage, crisps, chili paste, fried fish cake, shrimp past, pork sausage, preserved fruit and vegetable.

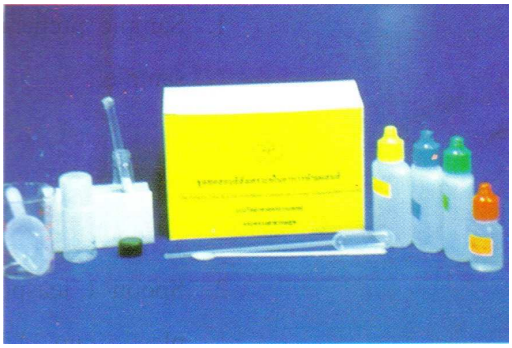
Number of Tests / Kit

- 10 Tests
- 22 Tests

Sensitivity of Test Kit

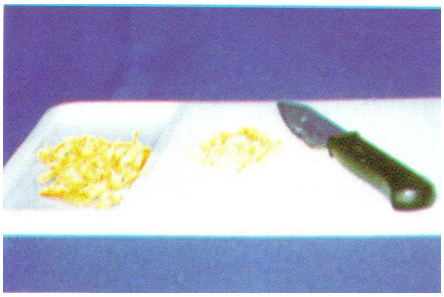
Detection limit 2 mg/kg

Test Kit Tool

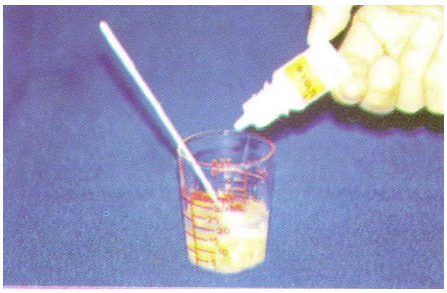


	Small Kit	Large Kit
Reagent 1 (bottle)	1	1
Reagent 2 (bottle)	1	2
Reagent 3 (bottle)	1	2
Reagent 4 (bottle)	1	2
Plastic cup	1	2
Glass tube	1	2
Plastic bottle with lid	1	2
Plastic spoon	1	2
Dropper	1	2
Glass column containing white-fine power	10	22
Plastic stirrer	1	2

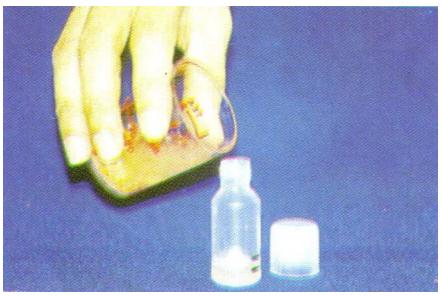
Procedure



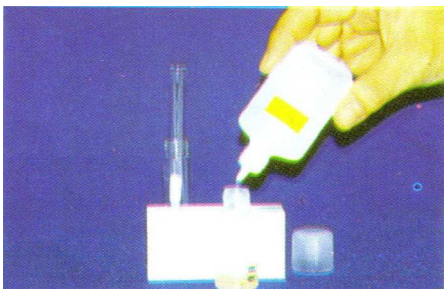
1. Sample preparation chop, and crush sample.



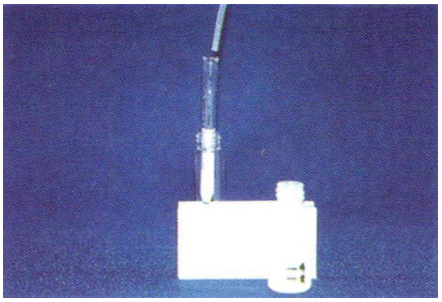
2. Spoon 1 teaspoon of sample into a plastic cup. Add clean water about 20 ml. and stir with stirrer. Add 2 – 3 drops of reagent 1, vigorously stir let it stand about 5 minutes or until dye in food dissolves out.



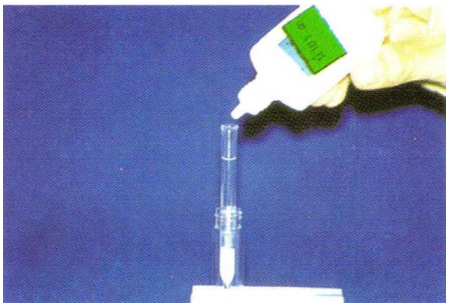
3. Transfer only liquid about 2 ml. into a plastic bottle.



4. Add about 2 ml. of reagent 2, close lid and shake, Remove plastic cover from column and place the column in the glass tube.



5. Use dropper draw solution from 4. About full length of dropper. Drop into the column, wait until no solution left on white-fine powder.



6. Pour out solution in discard the receptor glass bottle. Drop Reagent 3 in the column. Observe the movement of color band and color of solution in receptor glass bottle. Repeat once.

7. If there is color band at white-fine powder in the column, discard solution receptor glass bottle. Drop Reagent 4 into the column until its level is slightly lower upper margin. Observe the movement of color band and color of solution in the receptor glass bottles.

Evaluation

1. Instep 6, if there is the movement of color band and color of solution in receptor glass bottle, it shows the natural color in such food sample.
2. In step 7, if there is the movement of color tab and color of solution in receptor glass bottle, it shows synthetic dye in such food sample.
3. If there is no the movement of color band and no color of solution in receptor glass bottle, it shows the natural color of such food.

Precaution

- Reagent 1, 3 and 4 are volatile organic substances at room temperature.
- Tightly close the lid after use. Be cautious not to directly inhale their vapor.
- In case of contact, wash with water and soap. Place testing kit out of reach from children or direct sunlight.