

Station 1

DIRECTIONS

1) Grab a clear bottle

2) Visit each station

At each station add to your bottle the amount of colored sand you think is needed of this ingredient for a good hand soap

3) Check your results

Compare the colored bands in your bottle to the diagram at Station 8

4) Take your bottle home with you or recycle it here

You will visit 6 ingredient stations:

2. Solvent

3. Surfactant

4. Fragrance

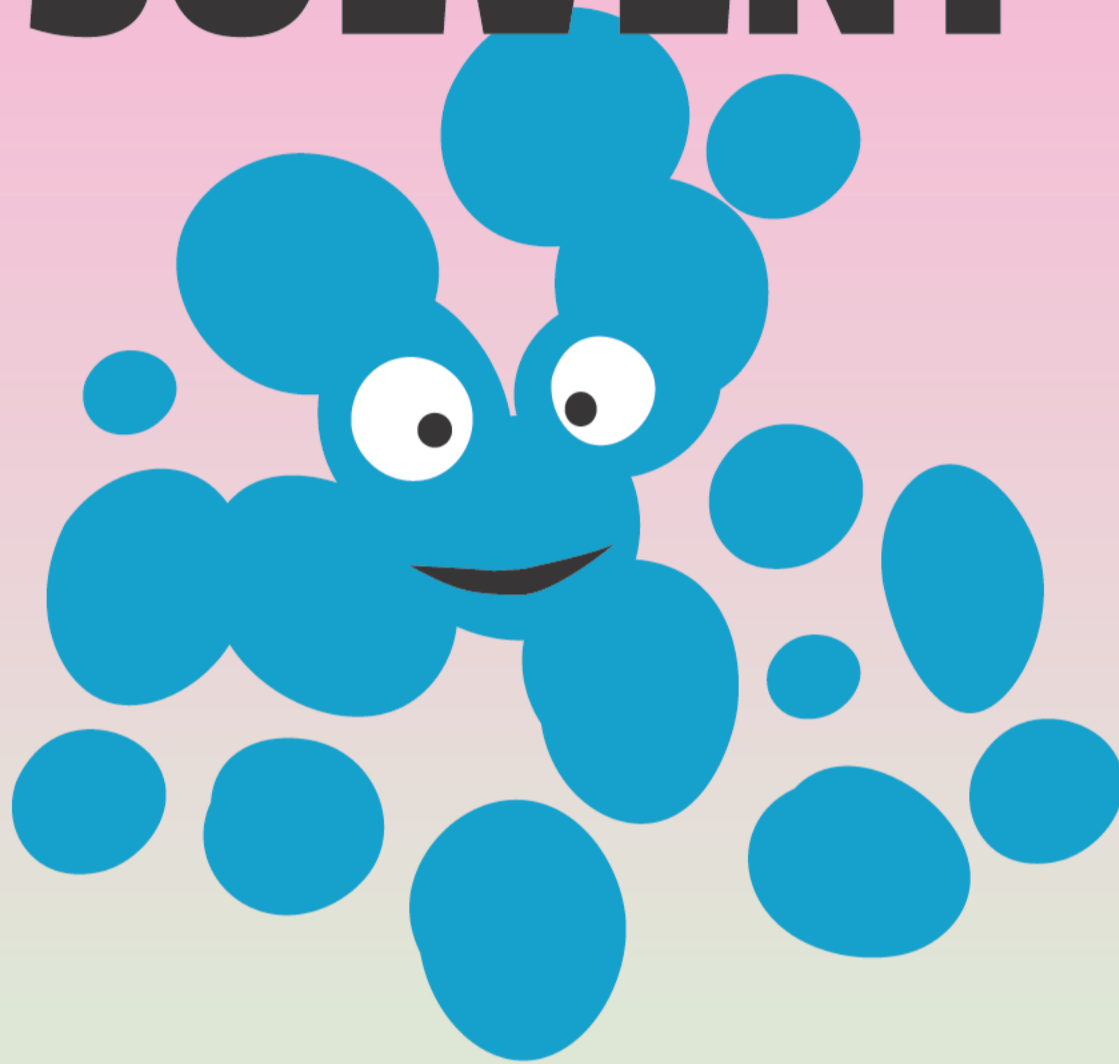
5. Preservative

6. pH Adjustor

7. Other

Station 2

SOLVENT

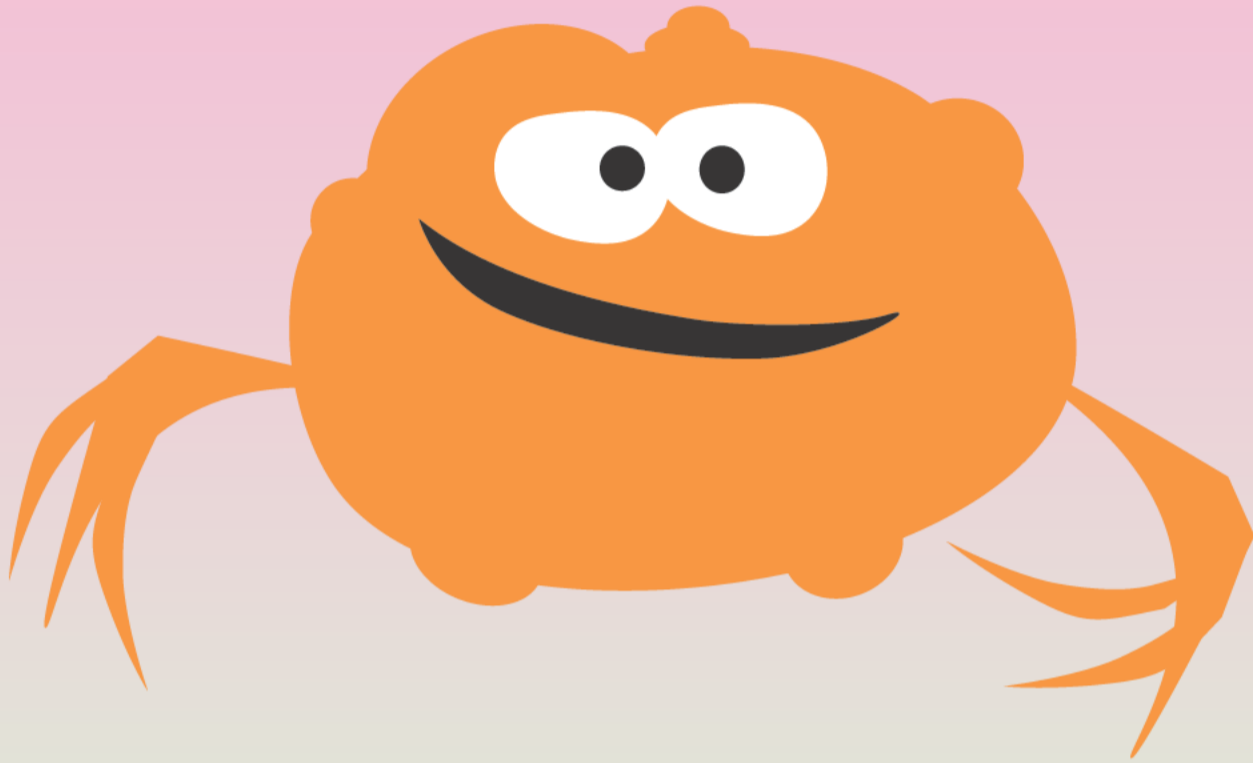


Solvents help to blend the ingredients and give soap the right consistency so it's easy to use.

Hint: The solvent is needed to dissolve all the other ingredients; you are going to need the greatest amount compared to the other ingredients.

Station 3

SURFACTANT



Surfactants are the chemicals in soap that remove germs and dirt. These chemicals hold onto the germs and dirt as the water washes them away.

Hint: Surfactants are the most important element of the soap, but are not found in the greatest amount.

Station 4

FRAGRANCE



Fragrances provide soaps with a pleasant, sweet smell.

Hint: Fragrances are optional in soap, some have them and some do not.

And they are very powerful, a little can go a long way.

Station 5

PRESERVATIVE

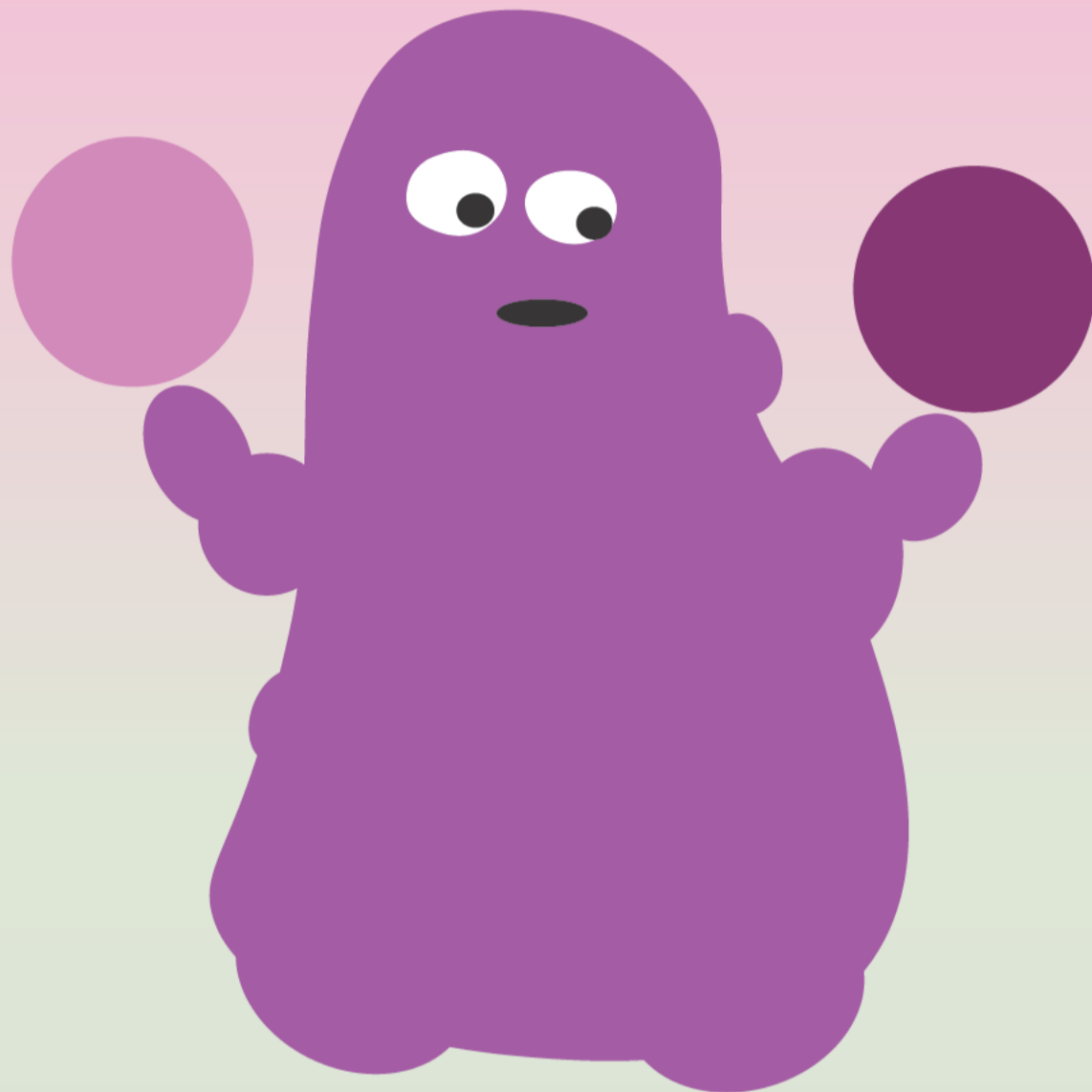


Preservatives protect the product, keeping microscopic bugs from growing and eating the soap ingredients.

Hint: Preservatives help the soap remain effective while it sits on your counter—but you will barely be able to see this color in the final product.

Station 6

pH ADJUSTOR

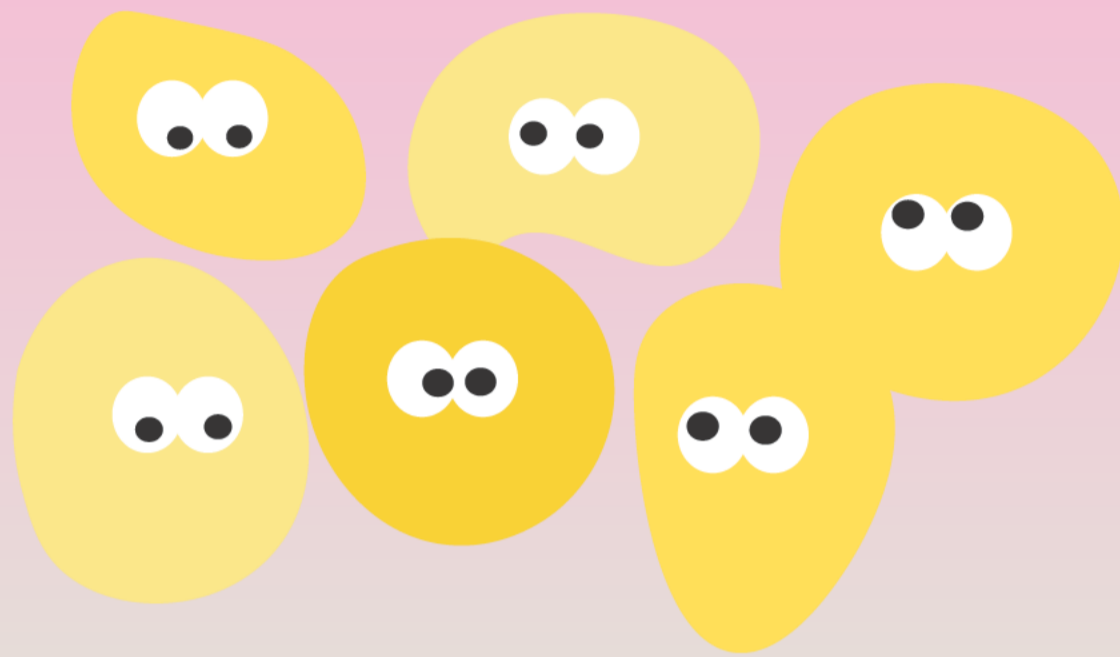


pH adjustors keep the formulation stable and affects how well the soap does its job.

Hint: Twice as much as preservative—but twice as much of a very little is still a very little!

Station 7

OTHER



Dye—Gives soap a bit of color

Thickener—Gives soap the proper consistency to flow out of a bottle

Moisturizer—Provides hydration and moisture to the skin

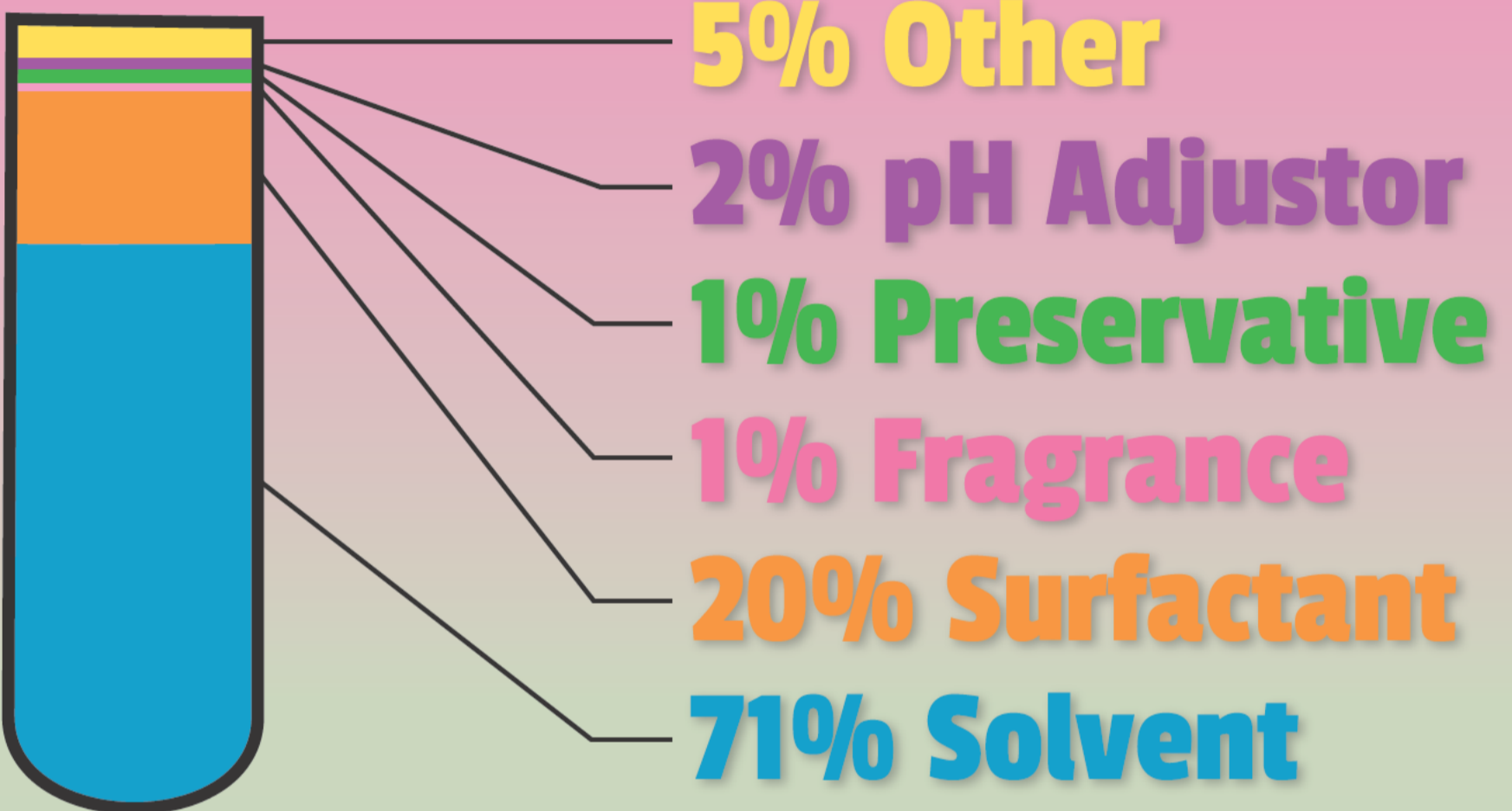
Foam Enhancer—Helps create suds

Builder/Chelating Agent—Provides extra cleaning power

Antimicrobial—Kills germs on your hands or body

Station 8

CHECK YOUR RESULTS



Just like when you are baking a cake, you must have the right balance of ingredients.

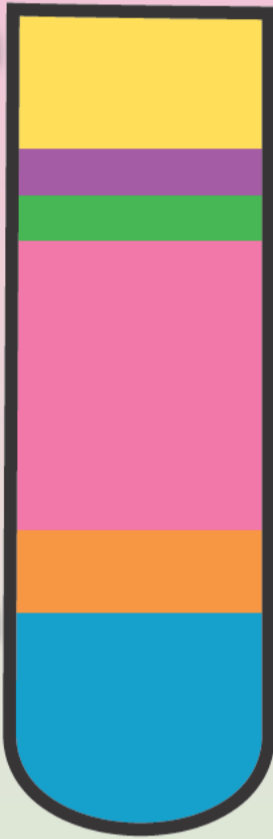
Otherwise the cake will be runny, hard, dry, or too salty.

A soap's formula is key to good cleaning performance.

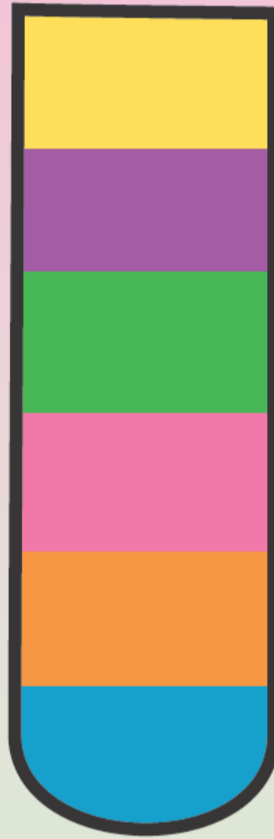
Station 8

WHAT DID YOU MAKE?

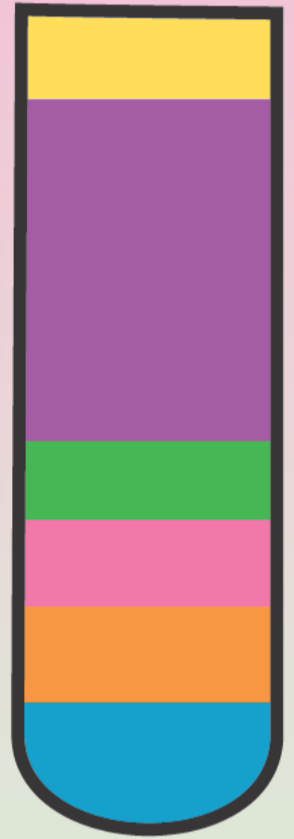
Way too smelly



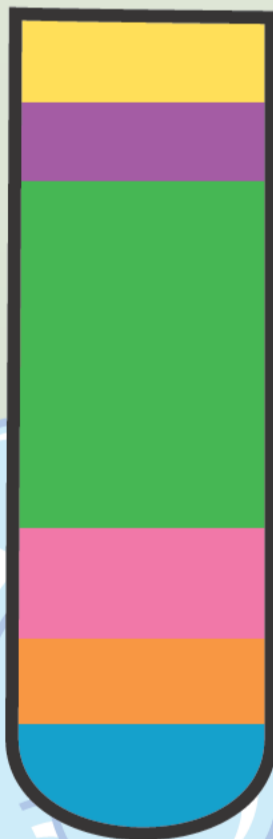
Thick



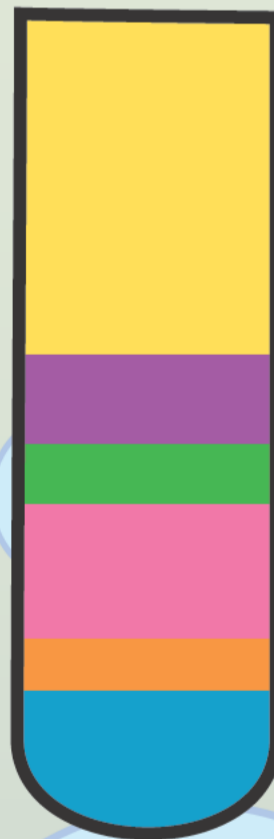
Ouch!



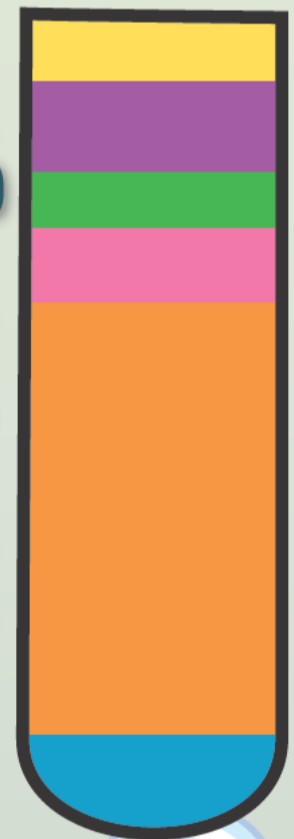
Harsh



Who knows?



Too strong!



Different formulas can lead to unexpected results –or new creations!

**Remember to save room
for all six ingredients!**

Solvent

Surfactant

Fragrance

Preservative

pH Adjustor

Other