

- Wash hands after carrying out experiments.
- Do not use any equipment which has not been supplied with the set or recommended in the instructions for use.
- Do not eat or drink in the experiment area.
- Do not allow chemicals to come into contact with the eyes or mouth.

WHAT IS SLIME?

We think of slime as some sticky goeey blob of jelly like substance, but what is it really? Slime is a unique play material composed of a cross-linked polymer. It is classified as a liquid and is typically made by combining polyvinyl alcohol (PVA) solutions with borate ions in a large mixing container. It often has a green color, and is cold and slimy to touch. In this kit the glue is a PVA solution and we replace borate with dish washing detergents. The key ingredient is a **surfactant** which has similar properties as borate to turn the PVA glue into slime.

SURFACTANT

Dish washing detergents, liquid soap, shampoo and similar cleaning products is mostly surfactant. A Surfactant has a hydrophilic (water attracting) part that wants to interact with the water and a hydrophobic (water repelling) part that wants to interact with the grease molecules. It is this property that helps it removes the dirt from the surface into water.

HOW DOES IT WORK?

The slime making process requires glue, dish soap, sodium bicarbonate and hot water. Sodium bicarbonate can make weak bonds within the polymer chains in the PVA glue so it can link the chains together. This is called cross-linking. This cross-linking changes the properties of the polymer from a viscous liquid to a far more viscous slime. The slime contains as much as 96% water trapped between the molecules. The surfactant in the dish washing detergent helps to trap the water inside, as well as stabilizing the cross-linking to prevent them from breaking down easily.

INGREDIENTS DETAIL:

Sodium Bicarbonate:

Name	ID	% by weight
Sodium Bicarbonate NaHCO ₃	CAS: 144-55-8 EC NO.: 205-633-8	100

Glow Powder:

Name	ID	% by weight
Zinc Sulfide ZnS	CAS: 1314-98-3 EC No.: 218-251-3	95
Strontium Aluminate SrAl ₂ O ₄	CAS: 12004-37-4 EC No.: 234-455-3	5

STRONTIUM ALUMINATE:

H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. P261 Avoid breathing dust. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

STORAGE OF CHEMICALS

Avoid direct sunlight. Keep away from wet or high humidity. Do not mix them in closed container.

DISPOSAL OF SLIME

The slime can be disposed of in a waste container.

Glue:

Name	ID	% by weight
Water	CAS: 7732-15-5 EC No.: 231-791-2	89.9
Polyvinyl Alcohol	9002-89-5 EC No.: 618-340-9	10
Preservative C4H4NSOCl+C4H5NSO	CAS: 26172-55-4 EC No.: 247-500-7	0.1



Warning

Glow In The Dark SLIME BALL

WARNING – Not suitable for children under 8 years. For use under adult supervision. Contains some chemicals which present a hazard to health. Read the instructions before use, follow them and keep them for reference. Do not allow chemicals to come into contact with any part of the body, particularly the mouth and eyes. Keep small children and animals away from experiments. Keep the experimental set out of reach of children under 8 years old. Eye protection for supervising adults is not included. Choking Hazard – Children under 8 years can choke or suffocate on uninflated or broken balloons. Adult supervision required. Keep uninflated balloons from children. Discard broken balloons at once. Made of natural rubber latex.

ADVICE FOR SUPERVISING ADULTS:

1. Read and follow these instructions, the safety rules and the first aid information and keep them for reference.
2. The incorrect use of chemical can cause injury and damage to health. Only carry out these experiments which are listed in instructions.
3. This experimental set is for use only by children over 8 years.
4. Because children's abilities vary so much, even within age groups, supervising adults should exercise discretion as to which experiments are suitable and safe for them. The instructions should enable supervisors to assess any experiment to establish its suitability for a particular child.
5. The supervising adult should discuss the warnings and safety information with the child or children before commencing the experiments. Particular attention should be paid to the safe handling of acid, alkalies and flammable liquids.
6. The area surrounding the experiment should be kept clear of any obstruction and away from the storage of food. It should be well lit and ventilated and close to a water supply. A solid table with a heat-resistant top should be provided.
7. Substances in non-reclosable packaging should be used up (completely) during the course of one experiment, i.e. after opening the package.

FIRST AID INFORMATION

Most important: In case of injury, get medical assistance immediately.

1. In case of eye contact: Wash out eye with plenty of water, holding the eye open if necessary. Seek immediate medical advice.
2. If swallowed: Wash out mouth with water; drink some fresh water. Do not induce vomiting. Seek immediate medical advice.
3. In case of inhalation: Remove person to fresh air.
4. In case of skin contact and burns: Wash affected area with plenty of water for at least 10 minutes.
5. In case of doubt, seek medical advice without delay. Take the chemical and its container with you.
6. In case of injury always seek medical advice.

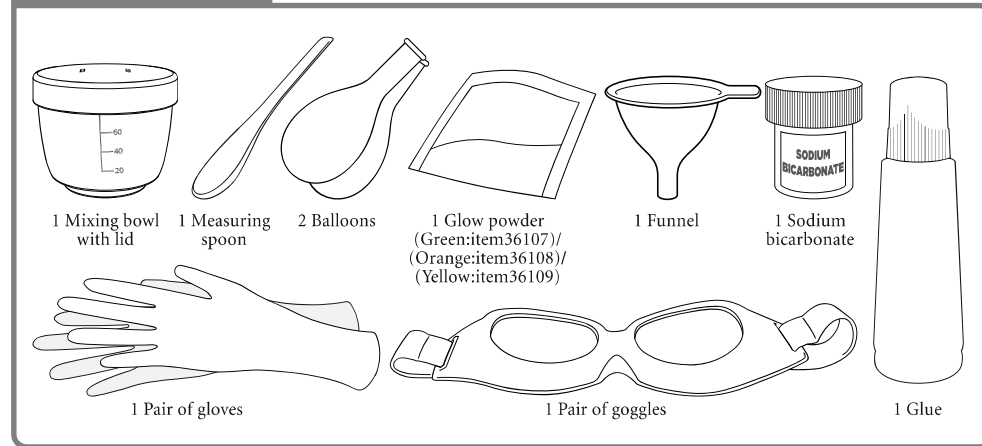
Write the telephone number of your nearest Poison Control Center that can be reached in an emergency: _____

SAFETY RULES:

- Read these instructions before use, follow them and keep them for reference.
- Keep young children, animals and those not wearing eye protection away from the experiment area.
- Always wear eye protection.
- Store experimental sets out of reach of children under 8 years of age.
- Clean all equipment after use.
- Make sure that all containers are fully closed and properly stored after use.
- Ensure that all empty containers are disposed of properly.

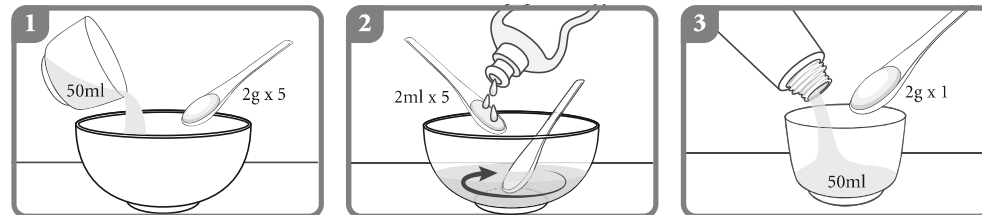
READ THE SAFETY REMINDERS CAREFULLY

PACKAGE CONTENTS



* You may also need : Dish soap, Large bowl

SLIME MAKING INSTRUCTIONS



- Put on the gloves, the goggles and prepare a large bowl at home. Pour 10g of Sodium Bicarbonate (= 5 measuring spoons), add 50ml of hot water and mix well (Make sure everything is dissolved).
- After dissolving the Sodium Bicarbonate, add 10ml (= 5 measuring spoons) of dish soap in it and mix it. Set it aside for use later.
- Measure 50ml of glue with the mixing bowl provided and put 2g (= 1 measuring spoon) of glow powder into glue and mix well.



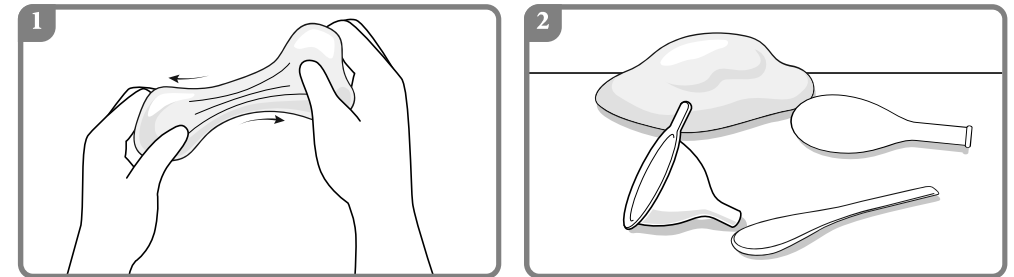
4. Pour the glue mixture into the Sodium Bicarbonate solution and start pushing the glue to one side gently.

Attention: Remember! Do not stir, the glue would not stick together while stirring at the same direction. Since the saturation levels of different brands of dish soap is different, if the slime is not thickening up, you might need to add 1 or 2 spoons of dish soap.

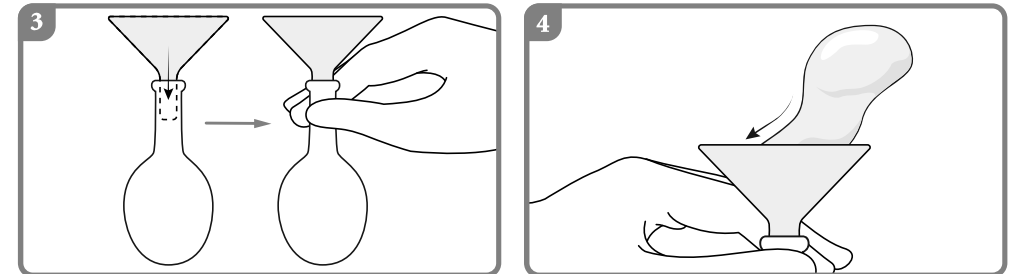
- The glue should start thickening up. Now use your hand to start kneading the clumps together. Try to squeeze out excess water and start stretching and kneading (This process allows excess water dries in air).
- The slime dough should work well after stretching and kneading for a few minutes. Repeat steps 1-6 for another piece of slime. Enjoy your Slime time!

Extra tip: Slime could perform better and less sticky after soaking in salt water for 1 minute. Salt water : Salt 2g + Hot water 10ml

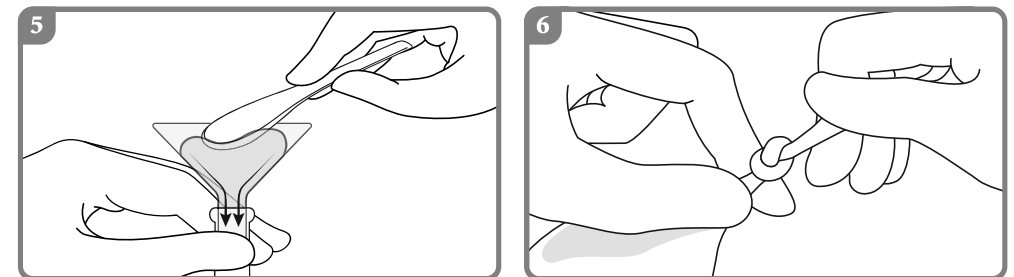
SLIME BALL MAKING INSTRUCTIONS:



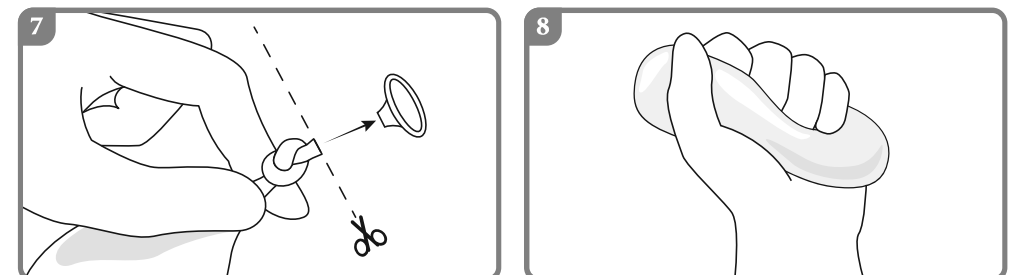
- The slime should be soft and easy to stretch after playing for a while.
- Prepare the slime, measuring spoon, a funnel and a balloon.



- Insert the funnel to the opening of the balloon and hold the balloon's neck tight with your fingers.
- Put the slime into the funnel.



- Use the measuring spoon to push the slime down to the funnel. This process might take a few minutes until all slime slips into the balloon.
- After pushing all slime in, tie a knot at the balloon's neck. Prepare the slime, measuring spoon, a funnel and a balloon.



- You could use a pair of scissors to cut the extra end of balloon if it is too long.
- You could start stretching and squeezing it.

If you really can't understand something, DON'T WORRY, we are happy to help you. Just get an adult to help you onto the internet, and go to this link: <http://www.eastcolight.com/en-us/contact-us>. From there, it is easy to tell us your first name and ask us a question. We'll get back to you very quickly with an answer.