

Surface Tension Quiz PDF

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What are the consequences of reduced surface tension in biological systems?

- Easier breathing in lungs
- Increased capillary action
- Enhanced nutrient absorption
- Difficulty in forming stable droplets

What happens to the surface tension of a liquid as the temperature increases?

- It increases
- It remains constant
- It fluctuates randomly
- It decreases

Which of the following factors can affect the surface tension of a liquid?

- Temperature
- Atmospheric pressure
- Type of liquid
- Impurities

Which of the following best describes the meniscus of water in a glass tube?

- Convex
- Flat
- Irregular
- Concave

Which of the following statements about surface tension are true?

- It is caused by adhesive forces.
- It allows liquids to form droplets.

- It is measured in pascals.
- It decreases with an increase in temperature.

What roles do cohesive and adhesive forces play in capillarity?

- Cohesives forces attract the liquid to the container walls.
- Cohesives forces help the liquid rise in the tube.
- Adhesives forces help the liquid rise in the tube.
- Adhesives forces attract the liquid to the container walls.

What effect do detergents have on the surface tension of water?

- Increase it
- No effect
- Neutralize it
- Decrease it

Which of the following is NOT a method to measure surface tension?

- Drop weight method
- Capillary rise method
- Thermometer
- Tensiometer

Which of the following liquids is likely to have the highest surface tension?

- Ethanol
- Water
- Oliven oil
- Mercury

Which phenomenon allows small insects to walk on water?

- Capillarity
- Surface tension
- Buoyancy
- Viscosity

Discuss the role of surface tension in the respiratory system, particularly in the alveoli.

Why does mercury form a convex meniscus in a glass tube, unlike water?

How can surface tension be measured using the capillary rise method? Describe the process briefly.

What is surface tension primarily caused by?

- Adhesives forces
- Cohesives forces
- Cohesives forces
- Magnetic forces

Which unit is commonly used to measure surface tension?

- Joules
- Pascals
- Watts
- Newtons per meter

Explain how surface tension contributes to the formation of droplets on a leaf.

Describe the relationship between surface tension and the contact angle of a liquid on a solid surface.

How does the presence of surfactants affect the surface tension of a liquid? Provide an example.

In which of the following applications is surface tension a critical factor?

- Inkjet printing
- Painting
- Alveoli function in lungs
- Cooking

Which of the following liquids typically have lower surface tension than water?

- Olive oil

- Ethanol
- Glycerin
- Mercury