

WHMIS

Workplace Hazardous Materials Information System

hazard symbol

a safety system providing a shape and symbol describing a hazard

hydraulic system

a closed system using liquids under pressure to move loads

pneumatic system

a closed system using air under pressure to move loads

fluid

a substance that has no fixed shape and flows

slurry

a solution of solid (small) particles mixed with water

hydrometer

is a device used to measure the density of a substance directly

pure substance

a substance made up of only one type of matter

mixture

a substance that has more than one type of matter

homogeneous

a solution that looks like it is just one substance

heterogeneous

a mixture in which all the part of the mixture are visible

colloid

a cloudy mixture with tiny particles of one substance held within another and are difficult to separate out

suspension

a cloudy mixture with particles of one substance held within another

solution

a mixture of two or more substances that appears to be one substance

paper chromatography

a test used to determine if a solution is a pure substance or a mixture

chromatogram

the filter paper used to test a solution to determine if it is pure or mixed

solute

the substance that dissolves

solvent

the substance that does the dissolving

concentration

is the amount of solute dissolved in a specific amount of solvent

saturated

a solution in which no more solute can be dissolved

unsaturated

a solution in which more solute can be dissolved

solubility

the maximum amount of solute that can be dissolved in a fixed amount of solvent, at a given temperature

saturation point

this is the point at which no more solute can be dissolved in a solvent

insoluble

a solute that is unable to be dissolved in a solvent

aqueous

a solution in which the solvent is water

Particle Model

a scientific model that is used to explain matter and its properties

dissolving

particles of a solute separate and fill the spaces within the particles of the solvent

viscosity

the rate of flow of a fluid

viscous

a term that identifies how thick or thin a fluid seems to be – or how quickly or slowly it will flow

ramp method

a procedure used to pour fluids down a ramp - to test their viscosity

density

is the amount of matter in a given volume

buoyancy

is the tendency of an object to float when it is placed in a fluid

buoyant force

the upwards force of a fluid acting on an object – opposing gravity

positive buoyancy (float)

when the buoyant force is greater than the force of gravity

negative buoyancy (sink)

when gravitational force is greater than the buoyant force

neutral buoyancy (suspend)

when the force of gravity and the buoyant force are equal

Plimsoll line

a line painted on a cargo ship to show how much the ship can safely be loaded in different water densities

compressibility

a force acting on an object causing the particles to come closer together

incompressible

unable to be compressed (reduce space between the particles)

pressure

is the amount of force applied to a given area

Pascal's Law

an enclosed fluid transmits pressure equally in all directions throughout the fluid

SCUBA

self contained underwater breathing apparatus

The 'bends'

a decompression sickness resulting from divers ascending too quickly from a dive

hyperbaric chamber

a high pressure chamber used to treat divers suffering from the bends

pump

a device used to force fluid into or through something

bitumen

a type of viscous substance that is commonly referred to as coal or oil

diaphragm pump

is a pump which uses a flexible membrane that can be moved to compress or decompress fluids in a closed system

valve

a device used to control or regulate the flow of a fluid in a closed system

bathyscaph

a deep ocean underwater ship designed to withstand extreme pressure

submersible

a ship designed to travel beneath the surface of water

submarine

a submersible designed to change density using ballast tanks, allowing it to float or sink

ballast tanks

chambers between the inner and outer hulls of a submersible that can be filled with water or air - allowing it to dive or float