

### THEORY

When a body is placed in a liquid, it experiences an upward force called upthrust or buoyancy. This force is equal to the weight of the liquid displaced by the body. This is known as Archimedes' principle. If the weight of the body is greater than the upthrust, it will sink. If the weight is equal to the upthrust, it will float. If the weight is less than the upthrust, it will rise to the surface and float.

Material	Relative Density	State
Water	1.0	Liquid
Ice	0.9	Solid
Wood	0.8	Solid
Oil	0.9	Liquid
Mercury	13.6	Liquid
Iron	7.8	Solid
Steel	7.8	Solid
Aluminum	2.7	Solid
Gold	19.3	Solid
Lead	11.3	Solid
Silver	10.5	Solid
Copper	8.9	Solid
Zinc	7.1	Solid
Brass	8.4	Solid
Concrete	2.4	Solid
Glass	2.5	Solid
Plastic	1.2	Solid
Rubber	1.1	Solid
Coal	1.3	Solid
Oil	0.9	Liquid
Water	1.0	Liquid
Mercury	13.6	Liquid
Alcohol	0.8	Liquid
Glycerin	1.26	Liquid
Acetic acid	1.05	Liquid
Carbon tetrachloride	1.59	Liquid
Chloroform	1.48	Liquid
Bromine	3.12	Liquid
Hydrochloric acid	1.18	Liquid
Sulfuric acid	1.84	Liquid
Nitric acid	1.42	Liquid
Phosphoric acid	1.71	Liquid
Hydrofluoric acid	1.11	Liquid
Formic acid	1.22	Liquid
Oxalic acid	1.10	Liquid
Malic acid	1.10	Liquid
Tartaric acid	1.34	Liquid
Ascorbic acid	1.30	Liquid
Glucuronic acid	1.30	Liquid
Gallic acid	1.30	Liquid
Ellagic acid	1.30	Liquid
Shikic acid	1.30	Liquid
Quinic acid	1.30	Liquid
Malic acid	1.30	Liquid
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### QUESTION



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