

Phone: 417.374.7431
Fax: 417.374.7442
service@gosciencecrazy.com
1747 North Deffer Drive
Nixa, Missouri 65714



Turbidity Tube #TURBTUB

Warning:

- **Not a toy; use only in a laboratory or educational setting.**
- **Contains latex**
- **California Proposition**



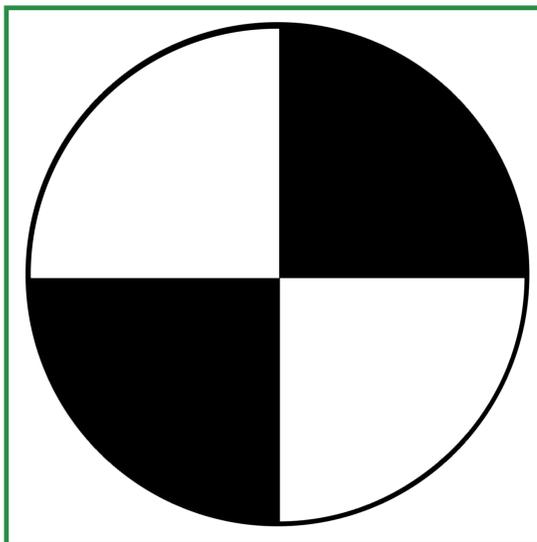
65 Warning: This product can expose you to chemicals including ethyl acrylate, lead, and benzene, which are known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Turbidity refers to the cloudiness of a fluid caused by any tiny particles, organic and inorganic, that are suspended in it. While some particles are heavy enough to sink through a liquid, many stay suspended in it with regular agitation. When light passes through a turbid liquid, the particles within it will reflect the light, causing the liquid to appear murky and take on a color. For example, water in a river or lake can appear muddy with the right particles in it. The turbidity of a body of water is dependent on many factors and can change frequently. It is a very useful measurement when considering how to treat

water in a given area, assessing water quality, or monitoring the environmental effects of a man-made project or a weather event.

Turbidity can be taken using methods other than a turbidity tube. While these methods, such as using a nephelometer, can give more accurate and consistent measurements, the low-cost and quick-usability of a turbidity tube makes it an essential piece of equipment while in the field.



How To Use

1. Use the pinch clamp to seal off the drainage tube.
2. Take a water sample using any clean container, and then use it to fill the upright turbidity tube.
3. Look down the tube from above and slowly drain the water from it by opening the pinch clamp on the drainage hose. Do this until the Secchi disk at the bottom of the tube is just barely visible. This may be easier to do with a partner draining the tube while you observe it from above.
 (Note: Do this step quickly after filling the tube so that any sediment or particles in the water don't have time to settle and separate from the water.)
4. Immediately stop draining once the disk becomes visible, and then record the height of the water in the tube.
5. Take multiple readings so that you can find the average turbidity of the body of water you are measuring. This average in centimeters can then be compared to the approximate equivalent in Nephelometric Turbidity Units (NTUs).

Distance from bottom of tube (cm)	Nephelometric Turbidity Units (NTUs)
< 6.25	> 240
6.25 to 7	240
7 to 8	185
8 to 9.5	150
9.5 to 10.5	120
10.5 to 12	100
12 to 13.75	90
13.75 to 16.25	65
16.25 to 18.75	50
18.75 to 21.25	40
21.25 to 23.75	35
23.75 to 26.25	30
26.25 to 28.75	27
28.75 to 31.25	24
31.25 to 33.75	21
33.75 to 36.25	19
36.25 to 38.75	17
38.75 to 41.25	15
41.25 to 43.75	14
43.75 to 46.25	13
46.25 to 48.75	12
48.75 to 51.25	11
51.25 to 53.75	10
53.75 to 57.5	9
57.5 to 60	8
Over the top	6

(Chart courtesy of the University of Utah Extension)