



NEWSLETTER

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WHAT IS TURBIDITY?



Turbidity is the cloudiness or haziness of a fluid caused by suspended solids that are usually invisible to the naked eye. The measurement of Turbidity is an important test when trying to determine the quality of water. It is an aggregate optical property of the water and does not identify individual substances

Water almost always contains suspended solids that consist of many different particles of varying sizes. Some of the particles are large enough and heavy enough to eventually settle to the bottom of a container if a sample is left standing (these are the settleable solids). The smaller particles will only settle slowly, if at all (these are the colloidal solids). It's these particles that cause the water to look turbid

01 What Causes Turbidity?

Erosion and effluent from highly urbanized zones contribute to the turbidity of waters in those areas. Construction, mining and agriculture, disturb the soil and can lead to raised levels of sediment which run off into waterways during storms. Storm water from paved surfaces like roads, bridges and parking lots also contribute to turbidity.

02 How is Turbidity Measured?

The most common measurement for turbidity in the United States are the Nephelometric Turbidity Units (NTU). NTU units are most commonly used by purification plants. We rather use suspended solids (SS) measured in mg/l or ppm because we mainly operate on the wastewater treatment plant market, but there is a relation between suspended solids and NTU.



What are the impacts of Turbidity?

The main impact is merely esthetic: nobody likes the look of dirty water.

But also, it is essential to eliminate the turbidity of water in order to effectively disinfect it for drinking purposes. This adds some extra cost to the treatment of surface water supplies. The suspended particles also help the attachment of heavy metals and many other toxic organic compounds and pesticides.

Turbidity and water quality

High concentrations of particulate matter affect light penetration and ecological productivity, recreational values, and habitat quality, and cause lakes to fill in faster. In streams, increased sedimentation and siltation can occur, which can result in harm to habitat areas for fish and other aquatic life. Particles also provide attachment places for other pollutants, notably metals and bacteria. For this reason, turbidity readings can be used as an indicator of potential pollution in a water body.

Turbidity guidelines for drinking water For drinking water supplies

Drinking water should have a turbidity of 5 NTU/JTU or less. Turbidity of more than 5 NTU/JTU would be noticed by users and may cause rejection of the supply. Where water is chlorinated, turbidity should be less than 5 NTU/JTU and preferably less than 1 NTU/JTU for chlorination to be effective