

FINAL pH ADJUSTMENT

Acidic or alkaline wastewater streams must be neutralized prior to discharge. When separate chemical neutralization is required, sodium hydroxide (caustic soda) is commonly used. It is easy to handle in a liquid form and can be used at various concentrations for final pH adjustment. Another common base material is limestone. Possessing slower reaction rates, limestone is most effective when reaction time is not a concern.

Sulfuric acid is the primary acid used to neutralize wastewater that has a high pH value. However one should be aware that in some applications, calcium sulfate might be precipitated as a result of the neutralization reaction. In cases where sulfuric acid is unacceptable, hydrochloric acid is often used for neutralization of basic wastes. For very weak basic wastewater streams, carbon dioxide can be adequate for final pH adjustment.

Clean water from the clarifier flows into the final pH adjustment tank. Sulfuric acid or sodium hydroxide is then added to increase or decrease the pH prior to discharge.

