



Langelier Saturation Index (LSI) Cheat Sheet

Introduction



What is LSI?

The Langelier Saturation Index (LSI) is a simple way to check if your pool water is balanced. It tells you if the water is too aggressive (corrosive), too full of minerals (scale-forming), or just right (balanced). Think of it as your pool water's "comfort zone."

Why is it important?

If water is out of balance, it will naturally try to fix itself. That means it may pull minerals from pool walls or leave crusty buildup. Balanced water keeps your pool looking good and your equipment running smoothly.

Ideal LSI Range:

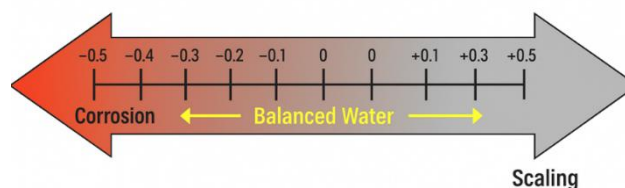
Keep your LSI between **-0.3 and +0.3**. This means the water is in a safe zone — not too aggressive, not too scale-forming. Aim for as close to 0.0 as possible.

Water Always Seeks Balance:

Water wants to be in equilibrium. If it's low on minerals, it will dissolve them from surfaces. If it has too much, it will drop them out as scale. Either way, it takes action to balance itself.

Details

The LSI Scale:



- **Negative LSI:** Water is "hungry" and may damage surfaces.
- **Zero:** Balanced water.
- **Positive LSI:** Water may leave scale deposits.

What Goes Into LSI:

To calculate LSI, you need:

- pH
- Total Alkalinity
- Calcium Hardness
- Water Temperature
- Total Dissolved Solids (TDS)



What Imbalance Means:

- **Low LSI:** Water may corrode plaster, vinyl, fiberglass, and metal parts.
- **High LSI:** May cause scale buildup on surfaces, heaters, and pipes.
- **Balanced:** Helps protect surfaces, water clarity, and equipment.

How to Fix Out-of-Balance Water

1. **Test Your Water** regularly (weekly in summer).
2. If LSI is **too low**:
 - Raise pH, alkalinity, or calcium.
 - Add baking soda or calcium hardness increaser.
3. If LSI is **too high**:
 - Lower pH or alkalinity with acid.
 - Consider partial water replacement if calcium is very high.

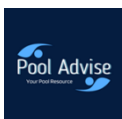
Saltwater Pools

Saltwater pools tend to drift higher in pH and have more dissolved solids. Check them more often and aim for tighter balance.



Summary

Balanced water makes your pool last longer, look better, and saves you money. Checking LSI is a smart, simple habit that prevents major issues. Keep your water in the safe range year-round — your pool (and wallet) will thank you!



Was this helpful? If you seek more details and a greater understanding, of LSI and pool water balance then head to: pooladvise.info