Solid Chemistry
WATER TREATMENT

Data Centers
Benefit From Using Solid Chemistry Water Treatment - Mitigate Risk, Improve Sustainability & Safety

BACKGROUND

Data centers are typically designed with redundancy to ensure 24/7, 100% uptime to maintain their mission critical readiness. Cooling demand is achieved commonly using high-efficiency, water-cooled chiller technology to remove heat from servers and temperature sensitive equipment.

Many data center operators utilize the most advanced technologies to store critical data. Being future-focused, these entities are incorporating sustainability into all aspects of their data center design, including water treatment.

WHY TREAT WATER?

Water treatment chemicals are essential as they allow for cooling towers and closed loop systems to operate continuously and correctly, to keep the surfaces free of corrosion and deposits. Corrosion and scale is a dangerous result of improperly treating systems, which is risky for facilities and can result in costly repairs and downtime. Treating the systems correctly will extend the life of these investments.

SOLUTIONS

Using solid chemistry water treatment delivers a carefully balanced, optimal solution that mission critical facilities hold while also providing the additional benefits of sustainability, safety and risk mitigation.

Produced using the EPA's Twelve Principles of Green Chemistry, solid chemistry emphasizes safety, efficiency and conservation of resources. This solution outweighs the use of a traditional liquid which can be cumbersome and damaging to both people and planet. By using solid chemistry, data centers will have peace-of-mind that their systems are protected with a superior, technically robust, safer solution.

Pictured is a typical solid chemistry setup. This small profile designs allows for a safer, cleaner mechanical rooms. Solid chemistry has long shelf stability and no storage constraints.

RISK MITIGATION

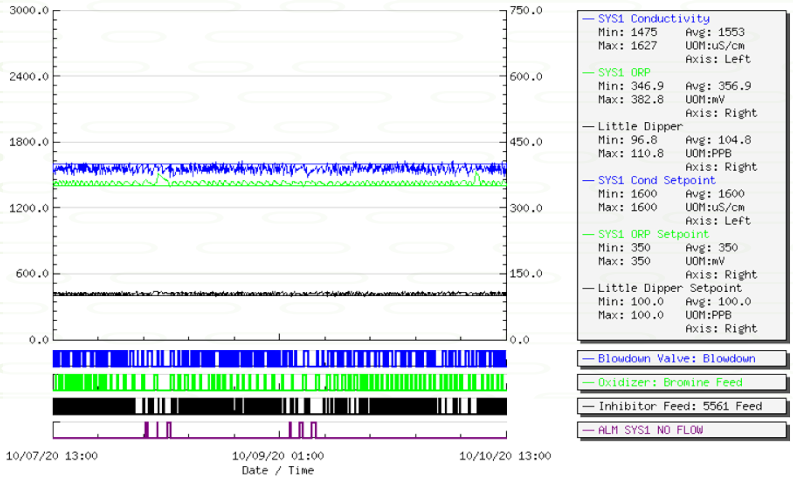
- Solid chemistry, by nature, increases safety by delivering high-performing chemistry, containing only highly concentrated actives. During the manufacturing process, the proven formulas are solidified without the requirement of excessive use of caustic that traditional liquid treatment typically require.

- Advanced monitoring and control technology allows for solid chemistry treatment to be controlled remotely. PTSA tracer control and our disc solids provide consistent and accurate feed control.

- Solid chemistry poses no threat of spills into the environment.

- Eliminate storage constraints with solid chemistry, unlike liquid-filled drums which typically require handling considerations, triple rinsing upon disposal due to their hazardous nature, and other restraints.

Example of remote monitoring feedback of a solid chemistry set up.

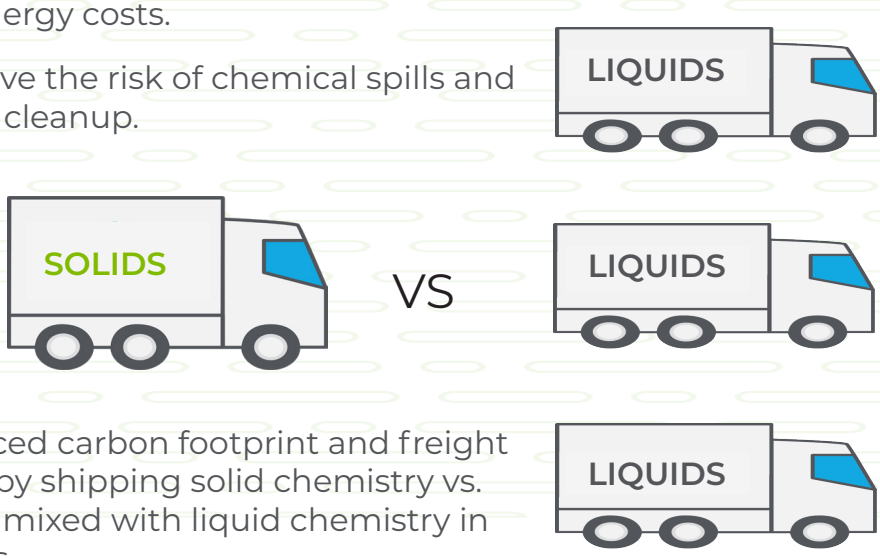


SUSTAINABILITY & SAFETY BENEFITS

- Assuming a 2,000 ton average load at 5 cycles of concentration, switching from liquids to solids can reduce CO2 emissions by 56 tons annually (or 1,123 tons over 20 years.)
- Replacing a 55-gallon drum of a liquid scale and corrosion inhibitor with a 44 lb case of concentrated solid chemistry, on average, results in a reduction in 2.5 gallons of diesel per shipment.
- Solid chemistry packaging is designed to be as minimal as possible and fully recyclable.
- Eliminate the risk of discharging hazardous liquid chemicals into the environment during shipment, application or storage.
- Improve operator safety by reducing exposure to hazardous chemicals.
- Solid chemistry dissolvers produce solutions of around pH 7.5 compared to typical and more hazardous liquid products of near pH 12.0.
- Reduces fuel and greenhouse gas emissions associated with product delivery.

One 44 lb. case of solid chemistry is equivalent to a 55 gallon, 500 lb. drum of liquid chemistry.

- Reduce water consumption and save on energy costs.
- Remove the risk of chemical spills and costly cleanup.



- Reduced carbon footprint and freight costs by shipping solid chemistry vs. water mixed with liquid chemistry in drums.

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