

Solid Chemistry

WATER TREATMENT

COLD STORAGE FACILITIES

Utilize Solid Chemistry Water Treatment to Optimize Space and Increase Employee Safety

BACKGROUND

Optimizing square footage space at cold storage facilities while keeping floor space clean and free from obstruction is crucial. This, along with temperature consistency, is strictly enforced and any interruption to the routine can be risky. In addition, many of these products are strictly regulated by government agencies and must be in compliance.

Cold storage facilities are typically designed with redundancy to ensure 24/7, 100% uptime to maintain their temperatures. Cooling demand is commonly achieved using evaporative condensers which are often elevated or on rooftops, with access only available via straight ladder.

Cold storage facilities utilize the most advanced technologies focusing on implementing industry best practices to be transparent and compliant with regulations. Technologically advanced, future-focused entities must be incorporated into all aspects of their cold storage design, including water treatment.

WHY TREAT WATER?

Water treatment chemicals are essential as they allow for evaporative condensers, cooling towers and closed loop systems to operate continuously and correctly, to keep the surfaces free of corrosion and deposit. Corrosion and scale is a dangerous and costly 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 solution which is carefully balanced to deliver the optimal solution of safety, risk mitigation and sustainability that cold storage facilities hold.

This solid chemistry system outweighs the use of a traditional liquid program which can be cumbersome and damaging to both people and the environment. Produced using the EPA's Twelve Principles of Green Chemistry, solid chemistry emphasizes safety, efficiency and conservation of resources. By using solid chemistry, cold storage facilities will have peace-of-mind that their systems are protected with a superior, safer solution and that their people are using the safest form of treatment.

SAFETY

- Eliminate storage constraints and create an obstruction-free facility room with solid chemistry. Simply place 44 lb cases of chemistry on a shelf versus trying to store large drums on the floor, which require spill containment and cleanup supplies.
- If access to the system requires a ladder, solid chemistry can be placed in a backpack resulting in a safer climb compared to handling 40 gallon pails of hazardous, sloshing liquid chemical.
- 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 dangerous additives (such as NaOH) that traditional liquid treatment needs to stay in solution.
- Eliminate the risk of discharging hazardous liquid chemicals into the environment during shipping, application or storage and improve operator safety by reducing exposure to hazardous chemicals.

Solid chemistry bottle placed into a dissolver (below) eliminates splashing and spilling. No additional safety training needed, as solid chemistry poses no threat of spills.



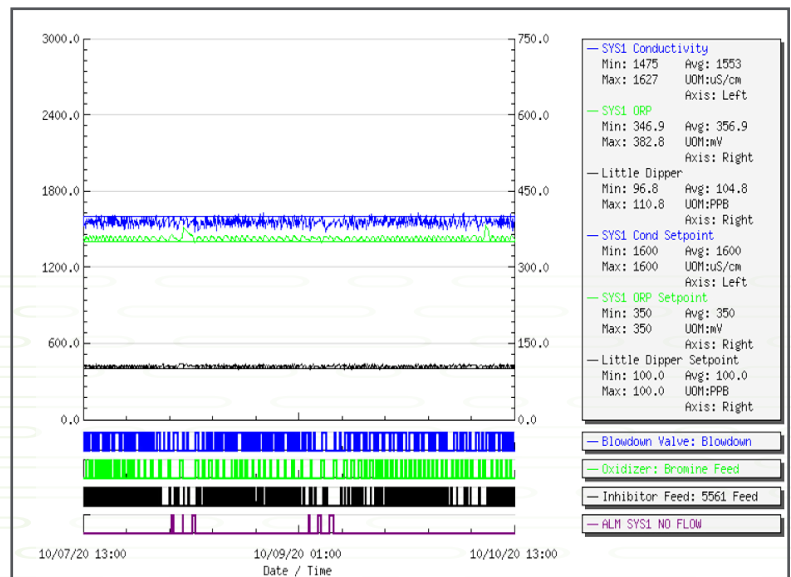
Cases of solid chemistry (above) weigh 44 lbs., which is equivalent to a 500 lb. drum of hazardous liquid chemistry (left).

RISK MITIGATION & SUSTAINABILITY



- Advanced monitoring and control technology allows for solid chemistry treatment to be controlled remotely.
- Solid chemistry will not freeze.
- 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 1,120 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.

- Remove the risk of chemical spills and costly cleanup.
- Solid chemistry packaging is designed to be as minimal as possible and fully recyclable.
- Reduce fuel and greenhouse gas emissions associated with product delivery.
- Reduce water consumption and save on energy costs.
- Experience Sodium Hydroxide (NaOH) savings from reduced power to produce NaOH as solids do not require the addition of this hazardous, corrosive chemical.
- Achieve a reduction in carbon footprint and freight costs by shipping light weight solid chemistry versus heavy liquid chemistry.





CONTACT

AP Tech Group, Inc.
5130 Rialto Road
West Chester, OH 45069
866-489-9831

info@aptechsolids.com
www.aptechsolids.com