

APEX

QUARTERLY

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RYDLYME DESCALES A STAINLESS STEEL PIPE IN A PULP & PAPER MILL!



NEWS ON SAFE
CHEMICAL SOLUTIONS
FROM APEX ENGINEERING
PRODUCTS CORPORATION



Watch a heat exchanger
descaling video!

Descaling Heat Exchangers

Regain efficiency by descaling safely and easily!

Heat exchangers play a crucial role in various industries, helping transfer heat between two or more fluids while keeping them physically separated. Over time, on the water side, these systems can accumulate scale, rust, and other deposits, reducing efficiency and potentially causing equipment damage. To address these issues, many industries turn to specialized descaling solutions, the safest, most effective option is often times **RYDLYME** descaler.

Understanding the Challenge

Scale buildup in heat exchangers is a common problem that arises due to the deposition of minerals and impurities present in water. This accumulation decreases the heat transfer efficiency of the system, leading to increased energy consumption, reduced performance, and even system failures. Traditional cleaning methods often involve harsh chemicals and manual labor, posing safety risks to workers and potential harm to the environment.

RYDLYME Descaler: A Safe and Effective Solution

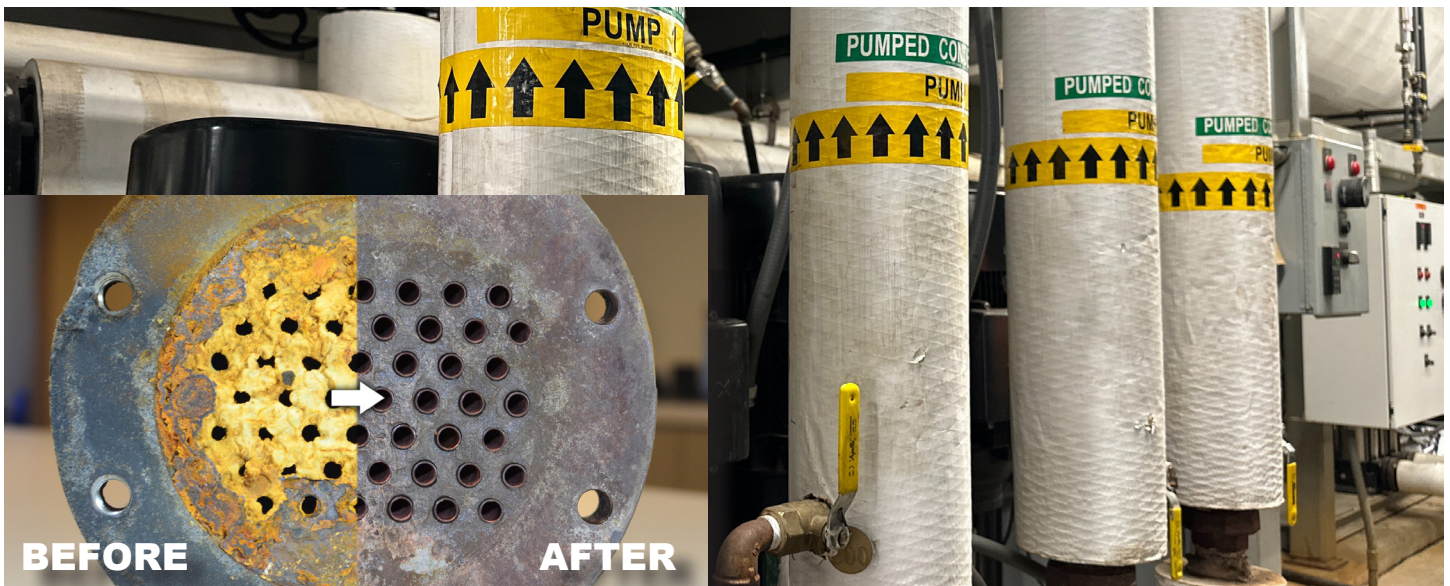
RYDLYME descaler is a biodegradable, non-toxic, and non-corrosive descaling solution specifically designed to safely and effectively remove scale, rust, and other deposits from heat exchangers and other water-based equipment. **RYDLYME** biodegradable descaler is as much as 12x faster than other chemical descalers, with most cleaning applications completed within a few hours. Unlike mechanical cleaning methods (e.g. brushing, rodding, hydro blasting), **RYDLYME** descaler can be circulated through equipment or system without arduous and costly dismantling. For many plants and facilities, a shutdown can cost thousands, even

millions of dollars. In most cases, an online or direct injection cleaning with **RYDLYME** descaler can be set up for circulation or single-pass to avoid a shutdown!

Shell and Tube Heat Exchanger Cleaning Procedure

1. Isolate and drain the water side of the exchanger to be cleaned.
2. Place a 1" ball valve between the isolation valves and the heat exchanger on both the supply and return.
3. Attach the **RYDLYME** pump and hoses so the **RYDLYME** will be pumped in the bottom or supply, and back out the top or return.
4. Begin pumping all the required **RYDLYME** into the exchanger. Once that is accomplished, begin to add water to complete the circulation. Please note: The calcium deposit will take up volume within the heat exchanger, so you will not be able to add the same amount of water in the beginning.
5. Continue circulating the solution for the recommended amount of time. As the circulation progresses and the product dissolves the deposits inside the unit, the volume will increase. To account for the increase in volume, please add water to the circulation vessel, as needed. If you begin adding a lot of water, please be aware, it is possible there is a leak in the system.
6. It is a good idea to periodically check the effectiveness of the solution while circulation is in progress. This can be accomplished by utilizing a pH meter and as long as the solution retains a low pH, the product is active. Should the circulating solution reach a pH of 5.5 to 7.0 before the recommended time is up, you will need to add more **RYDLYME** and possibly extend the circulation time.
7. Upon completion of the recommended circulation time, the solution may be purged to a normal sewer and flushed with water. This process is completed by placing the return hose in the drain and adding water to the circulation container until the discharge line runs clear.
8. The unit is ready to be returned to service.
9. The same instructions may be used for plate and frame-type heat exchangers. Please contact our technical team for more information.

Please note: If your situation dictates that you cannot take your heat exchanger off-line, please contact the manufacturer for on-line cleaning instructions.



STAINLESS STEEL PIPELINE CLEANING

A pulp and paper mill was experiencing 1" calcium carbonate build up in a 3" stainless steel pipeline which connected to a tile dissolving tank. After numerous, dangerous and time consuming hydro-blasting attempts, an alternative solution was sought out.

After some discussion, **RYDLYME** was determined to be the best solution for dissolving the calcium carbonate issue the plant was experiencing. After determining the quantity of **RYDLYME** needed for a 50% dilution ratio, four (330 gallon) totes were purchased for this project.

After 5 hours of circulation, the once scale ridden pipeline was returned to its full 3" inside diameter! The mill was now able to get a healthy, steady flow out of the end of the pipeline versus a small trickle before the cleaning!

The mill is now implementing a preventative maintenance program to make sure the pipeline doesn't build up calcium like it once had!



CHALLENGE

A pulp & paper mill was experiencing calcium carbonate build up within their stainless steel pipeline.

SOLUTION

A total of 1320 gallons of **RYDLYME** was circulated through the stainless steel pipeline for 5 hours.

RESULTS

The stainless steel pipeline was returned to bare metal! No longer was the mill experiencing a slow trickle but rather a powerful, steady flow! The mill is now implementing a preventative maintenance program to make sure this issue does not return!



RTK - USE WHAT THE PROS USE



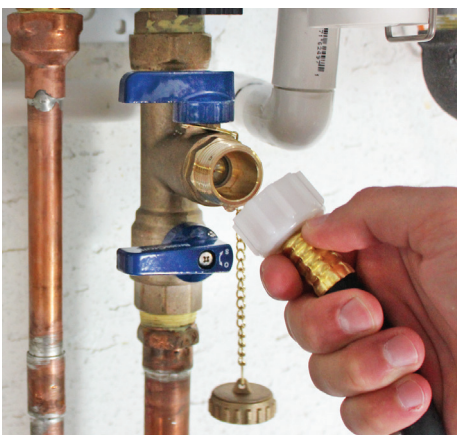
Click to watch the video!

RYDLYME[®] TANKLESS WATER HEATER CLEANING KIT

A large apartment building was experiencing issues with heat transfer in their Lochinvar water heaters. Looking for a solution, the chief engineer wanted something that was quick, easy and safe for his staff to be utilize. The only product suitable for them was **RYDLYME**.

Mineral deposits can accumulate rapidly in your tankless water heater robbing you of thermal efficiency and money each month. By periodically cleaning your tankless water heater with **RYDLYME** Biodegradable Descaler, you can keep it operating at peak performance and reduce heating and water costs, as well as extend the life of your equipment!

The **RYDLYME** Tankless Water Heater Cleaning Kit (**RTK**) is the fast, effective and safe solution for maintaining your tankless water heaters. By utilizing **RYDLYME**, the "World's Leading Biodegradable Descaler," you can resolve your tankless water heater scaling issues **IN LESS THAN 30 MINUTES!**



DESCALER & PUMPING SYSTEMS



RYDLYME biodegradable descaler is uniquely formulated to dissolve the toughest water scale, lime scale, mud and rust deposits from virtually any water-operated equipment. NSF A3 and ANSI 60 certified.



RYDLYME Pumping Systems are specifically designed to circulate **RYDLYME** through a vast array of equipment and systems to keep your facility at peak operating condition.

CLEANERS & DEGREASERS



RYDALL CC Coil Cleaner is a biodegradable, concentrated solution that is safe for indoor and outdoor cleaning of air exposed surfaces on HVAC/R equipment. Dilutable and capable of being applied via foaming applicator. NSF A3 certified.



RYDALL MP Multi Purpose Degreaser is a biodegradable, versatile cleaner that quickly and safely removes oil, grease, grime and other pollutants from wettable surfaces and components. NSF A1 certified.



RYDALL HD Heavy Duty Degreaser is a biodegradable heavy duty, industrial grade degreaser. Used specifically on all carbon based derivatives that are found on the oil and/or process sides of your critical equipment or systems.



RYDALL VP Specialized Degreaser is a biodegradable, pH neutral degreaser specifically designed to safely and quickly clean and degas refinery process equipment. It can be applied in circulation or vapor phase applications.



RYDALL DC Deodorizing Cleaner is a biodegradable, ultra-concentrated cleaner designed to be used generally in janitorial applications such as floor, bathroom and window cleaning.

ODOR CONTROL & WATER TREATMENT



RYDALL OE Odor Eliminator is a unique, environmentally beneficial additive that is applied to landfills, compost or other organic odors. Naturally enhances methane release and production. Contains no masking agents, essential oils or fragrances.



RYDALL WO Water Optimizer is an environmentally beneficial additive that naturally reduces and prevents the formation of H₂S, COD, BOD, FOG, TDS and TSS. Thereby reducing corrosion and discharge penalties while increasing production.



BUCKED SCENT ELIMINATOR is born and bred from our industrial products, BUCKED is designed to eliminate the scent hunters carry in order to be invisible!

1241 Shoreline Drive Aurora, Illinois 60504 T: 630.820.8888 | 800.451.6291 | F: 630.820.8886 | MADE IN THE USA

Apex Engineering Products has been formulating and manufacturing safe and biodegradable specialty cleaning chemicals for a diverse range of applications around the world. From our **RYDLYME** biodegradable descaler to our versatile **RYDALL** line of degreaser/cleaner, odor control and water treatment products, we aim to decrease downtime and increase efficiency.

We are a fourth-generation, family-owned company acclaimed not only for our biodegradable line of products, but also our in-depth and exceptional customer support. With decades of knowledge and experience in a wide array of applications, our professional technicians will work closely with you to determine the best solution for your facility's unique challenges.

Apex Engineering Products also takes great pride in being an ISO 9001 Certified Company providing the highest level of support and quality of products to our customers... **another formula that hasn't changed in over 80 years!**