

APEX

QUARTERLY

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RYDLYME DESCALES CHILLER AT A FINANCIAL INSTITUTION!



NEWS ON SAFE
CHEMICAL SOLUTIONS
FROM APEX ENGINEERING
PRODUCTS CORPORATION



“Easily circulate **RYDLYME** through cooling towers and chillers to descale deposits. Save time & money!”

Cooling tower & chiller descaling with **RYDLYME**

If you own or operate a cooling tower and chiller system, you know how important it is to keep it running efficiently. Over time, scale and mineral buildup can accumulate on the interior surfaces of the system, reducing heat transfer efficiency and causing the system to work harder to maintain the desired temperature. This can lead to higher energy bills, increased maintenance costs, and even system failure. Fortunately, **RYDLYME** Descaler can help with cooling tower & chiller descaling.

Recently, **RYDLYME** Descaler was used to descale a cooling tower and chiller in the same loop, with excellent results. Here's how it was done:

Step 1: Preparation

Before starting the descaling process, the system was thoroughly inspected and assessed to determine the extent of the scale buildup. The water was drained from the cooling tower, and the chiller was isolated to prevent the descaler from circulating through other parts of the system. Safety precautions were taken by the operators.





Step 2: Application

RYDLYME Descaler was mixed with water to the recommended concentration, and then pumped into the cooling tower and chiller loop. The solution was circulated for several hours to allow the descaler to dissolve and remove the scale buildup. During this time, the pH level of the solution was monitored and adjusted as needed to ensure that it remained within the recommended range.

Step 3: Rinse and Inspection

Once the descaler had been circulated for the recommended amount of time, the solution was drained from the system, and the system was thoroughly rinsed with clean water.

Step 4: Results

After the descaling process was completed, the cooling tower and chiller were reconnected and started up. The system was monitored for several days to ensure that it was running efficiently and effectively. The operators reported that the system was running more efficiently.



What is **RYDALL MP** Biodegradable Degreaser?

RYDALL MP is a multi-purpose biodegradable degreaser designed to remove oil, grease, and other contaminants from surfaces. It is a water-based product that is safe to use on wettable surfaces, including metal, plastic, and rubber. The product is made by Apex Engineering Products Corporation, a company that specializes in the development of environmentally-friendly cleaning solutions.

Benefits of **RYDALL MP** Biodegradable Degreaser:

- 1. Environmentally-Friendly:** One of the most significant advantages of **RYDALL MP** is that it is a biodegradable product. This means that it breaks down into natural elements, leaving no harmful residue behind. As a result, it is safe to use in environments where other chemical-based cleaners may be prohibited.
- 2. Multi-Purpose:** **RYDALL MP** is a versatile product that can be used to clean a wide range of surfaces. It is particularly effective at removing oil and grease from metal surfaces, making it an ideal product for use in industrial applications.
- 3. Non-Toxic:** **RYDALL MP** is a non-toxic product that does not contain any hazardous chemicals. As a result, it is safe to use around people, pets, and plants. This makes it an ideal product for use in homes and other residential settings.
- 4. Easy to Use:** **RYDALL MP** is a water-based product that is easy to apply. It can be sprayed or brushed onto the surface to be cleaned and then rinsed off with water. This makes it a convenient product for both commercial and residential users.
- 5. Cost-Effective:** **RYDALL MP** is a cost-effective product that provides excellent value for money. It is sold in concentrate form and can be diluted with water to create a cleaning solution that is tailored to the user's needs. This means that a little goes a long way, making it an economical option for cleaning large areas.



FINANCIAL INSTITUTION CHILLER CLEANING

A large financial institution was having serious issues with water scale deposits which had accumulated in their 600 ton chiller. Approach temperature per the chiller's design specification was 3°F. This value had skyrocketed to upwards of 12°F and reduced the chiller's capacity to barely 80%. However, while operating at this level the approach temperature was still two degrees above normal. Previously, the chiller had been cleaned with harsh acids which had corroded the walls of the copper tubes in the condenser. This prohibited further use of corrosive acids to clean the system. A senior technician fortunately remembered using **RYDLYME** at his previous casino operation and immediately contacted Apex Engineering Products to facilitate a solution as soon as possible.

The chiller equipment was identified and prescribed 110 gallons of **RYDLYME** to circulate a 50% solution. The **RYDLYME** along with a descaling system was delivered within 24 hours and setup for cleaning. The onsite engineer circulated the solution through the condenser for the recommended five hour period. After bringing the chiller back online, the approach temperature was reduced to just 1.5°F! The unnecessary energy cost due to the scale accumulation were recovered and the net savings from using **RYDLYME** were in excess of \$8,000 with a payback period of less than three months. The senior technician was now able to draw on these results and revise the PM schedule on two other chillers at the facility to utilize **RYDLYME**. Another \$20,000 in savings, interest free!!



CHALLENGE

A financial institution's 600 ton chiller scaled with mineral deposits had approach temperatures almost 10°F above normal.

SOLUTION

Next day delivery of 110 gallons of **RYDLYME** and descaling system to circulate for 5 hours.

RESULTS

Return to within OEM specification of 1.5°F approach, net energy savings of \$8,000 and an additional \$20,000 in savings after the neighboring chillers were cleaned.

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!**