

APEX

QUARTERLY

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IN THIS ISSUE:

***RYDLYME* EQUIPMENT STICKERS ARE HERE AND AVAILABLE FOR USE!**

WHAT IS UNDER DEPOSIT CORROSION AND HOW CAN IT BE PREVENTED?

FOUL TERRITORY: ODORS IN GROCERY STORES - WHAT CAN HELP?!



**NEWS ON SAFE
CHEMICAL SOLUTIONS
FROM APEX ENGINEERING
PRODUCTS CORPORATION**

CONTENTS

RYDLYME Equipment Stickers are here and available!



Check out what **RYDLYME** can do for cooling towers and energy savings!



What is under deposit corrosion and how can it be prevented?



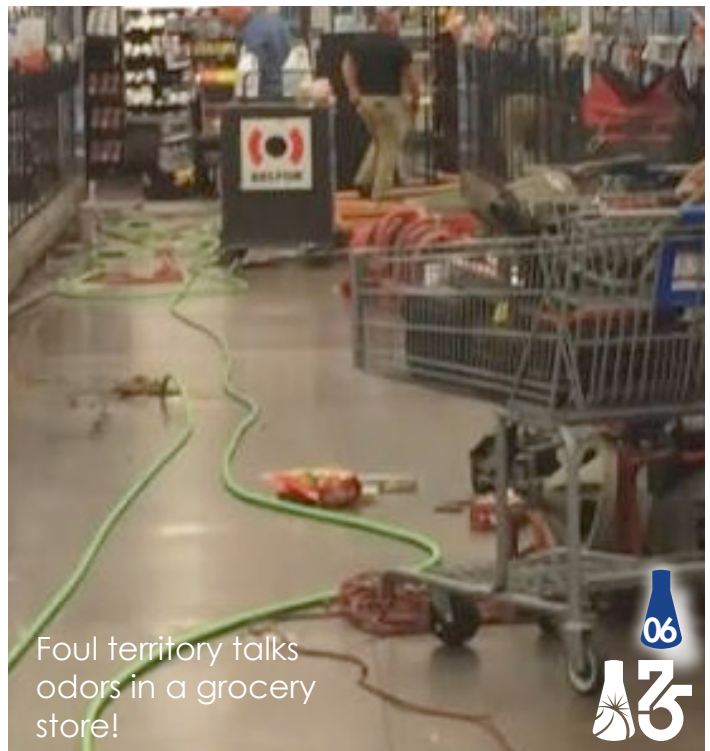
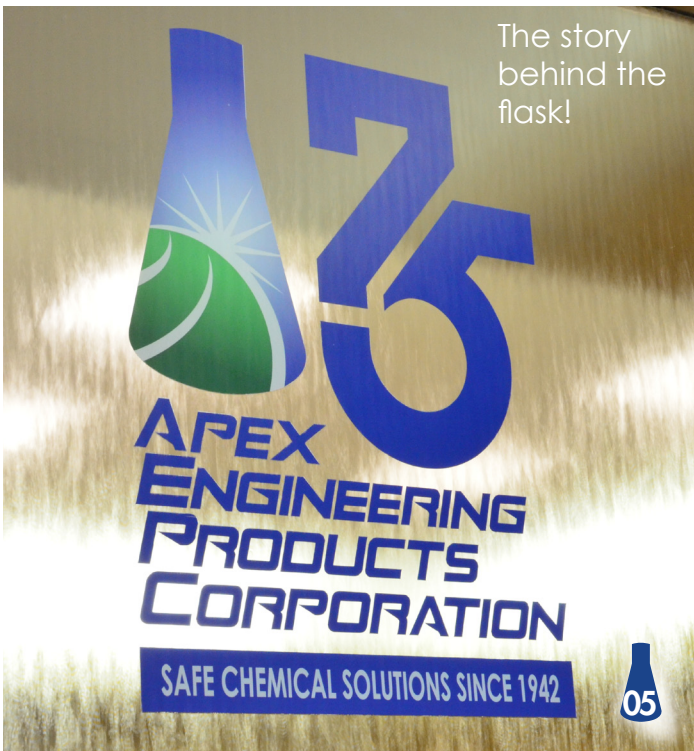
RYDALL **MP**
BIODEGRADABLE Multi Purpose Degreaser TM

In ACTION!

RYDALL **WO**
BIODEGRADABLE Water Optimizer TM



The story behind the flask!



Foul territory talks odors in a grocery store!





RYDLYME EQUIPMENT STICKER

When did we clean last? Is it time for a **RYDLYME** cleaning? These questions will now be a thing of the past. Introducing **RYDLYME** Equipment Stickers! These water resistant, tough - yet compact sized stickers are the perfect addition to a maintenance program.

These stickers will adhere to a clean, dry and smooth surface with ease! Just peel the back off and stick to a recently cleaned piece of equipment. Fill in the date of the cleaning,

how many gallons were used, how long the solution was circulated and when the customer should reorder. Apex Engineering Products phone number is proudly stamped

below the information for any questions regarding the cleaning or what quantity is needed for the next round.



FIELD TESTED AND APPROVED.



These durable, yet efficiently sized equipment stickers are located with the freight packing list! Be sure to double check! Adhere to a clean, dry surface and mark down the important information and dates. These water resistant stickers will stand the test of time in multiple environments! And remember - a Sharpie marker will work best on the sticker surface.

- Apex Engineering Management Team



UNDER DEPOSIT CORROSION



Water scale deposits are naturally corrosive to surfaces. You can imagine rust on a car bumper which over time will corrode all the way through the metal leaving empty space. Over time and without maintenance, the water scale deposits within your equipment will continue to corrode into the metallurgies and can ultimately penetrate through tube walls, exchanger plates or piping systems causing leaks. In most cases, these leaks are found in areas where the metal is thinnest i.e. pipe thread. This can be prevented by performing periodic **RYDLYME** cleanings, ensuring the proper use of protective coatings and sealants, and using stainless steel grades containing molybdenum (316, 316L) which will have greater resistance to corrosion. Keep in mind, that stainless steel does not always mean stain-proof. Just like a cell phone may be water-resistant, but it may not be 100% waterproof. The same goes for your equipment, the aforementioned steps will help prevent, but not eliminate the potential for under deposit corrosion.

Performing a **RYDLYME** cleaning on equipment that has preexisting under deposit corrosion can lead to the discovery of pin-hole leaks in the system. This is because **RYDLYME** is very effective at dissolving the corrosive scale deposits and allowing the under deposit corrosion to be exposed. It is also possible that after a **RYDLYME** cleaning, pitting or small rough areas can be found after inspection where the scale deposits have only begun to corrode through the metal. This is a good indication that a **RYDLYME** cleaning should be performed more frequently to prevent scale from corroding all the way through the metal.

It is not easy to determine if under deposit corrosion will be evident prior to cleaning with **RYDLYME**. Factors including, but not limited to: water hardness, frequency and effectiveness of prior cleanings, water treatment, operating temperatures, flow rate and total operating hours all contribute to the potential of under deposit corrosion. Understanding the potential and effects of under deposit corrosion can prepare you and your technicians for otherwise catastrophic problems on your equipment. For additional information and proper maintenance procedure for utilizing **RYDLYME** please contact us for your local representative.

CAN YOU PREVENT UNDER DEPOSIT CORROSION?

- Use **RYDLYME** to remove this build up before it's too late and these deposits destroy fittings and elbows in your piping
- Use stainless steel grades that contain molybdenum
- Maintain clean surfaces throughout your equipment



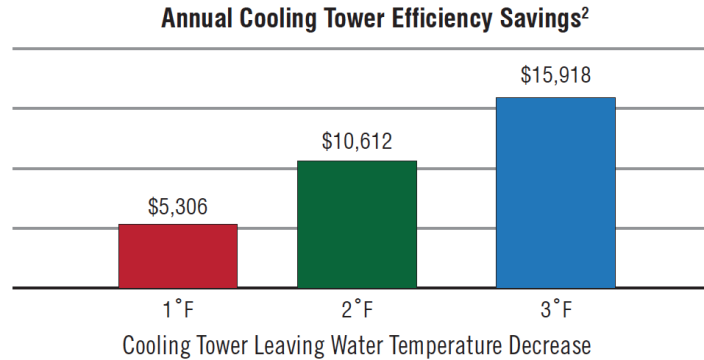
ENERGY SAVINGS WITH **RYDLYME**

Don't let the summer heat creep up on you! Clean your cooling towers with **RYDLYME**!

The basic principal of a cooling tower is to cool the water that has picked up heat generated by equipment within and around a facility.

The operation begins in the tower basin where the cooled water is pumped out into the facility and utilized for cooling the equipment on the tower system. As that equipment is cooled, the water picks up the heat and returns to the top of the cooling tower. The hot water is distributed onto a hot deck or through the spray nozzles that evenly distribute it over the tower fill media.

On average the HVAC system uses 25% of a building's electricity. The slightest increase in cooling tower leaving water temperature will result in significantly higher energy costs.¹



- Note 1: U.S. Energy Information Administration (EIA)
- Note 2: Savings are based on the energy costs for a 500 ton centrifugal chiller, 0.68 kW/ton chiller efficiency at full load, \$0.12/kWh energy cost, \$25/kW per month, 80% ratchet demand charge, and 2,000 equivalent full load hours of operation.

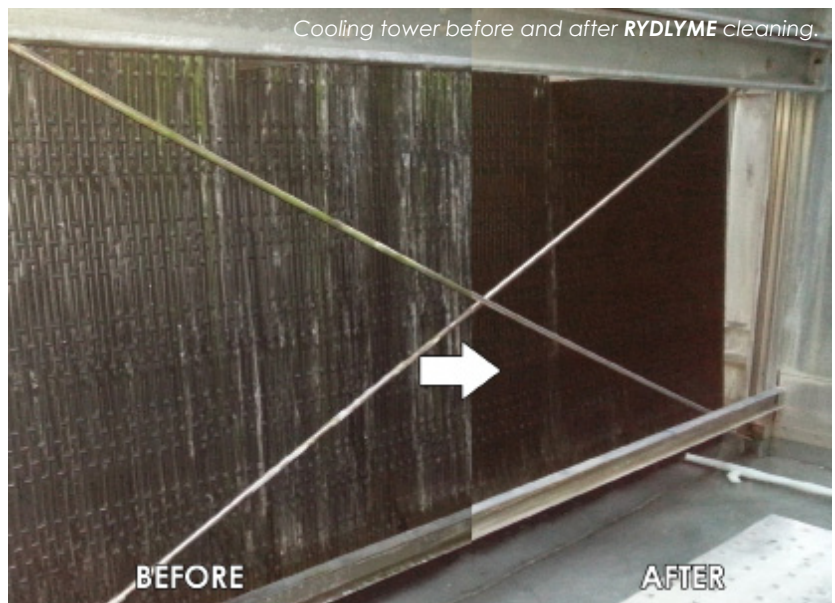
Figure 1 - Baltimore Aircoil Company

The tower fill media is designed to increase surface area, as well as contact time between air and water. This enhances evaporation and allows further cooling of the tower water. The water then falls into the tower basin where it is then pumped back into the facility to cool the system equipment.

Scaling within a cooling tower can restrict the water distribution of spray nozzles, reduce the water flow through the openings of a hot deck and restrict the air flow within the tower. All of these conditions will result in diminished cooling capacity and inefficient operation of the associated equipment on the cooling tower system.

Neglecting cooling towers as well as other water operated equipment could not only increase the chance for bacteria growth, but will cost more money in the long run versus cleaning the equipment with **RYDLYME**. As little as a 3°F temperature reduction on a cooling tower can save approximately \$16,000 a year! (See figure 1). In this scenario, the payback period for using **RYDLYME** is 1 month!

A cooling tower system can be cleaned by adding **RYDLYME** to the tower basin, thus allowing the towers transfer pump to circulate the solution throughout the tower and the equipment it is cooling. This can be accommodated during the normal operation of the cooling tower without shutdown! It is imperative when calculating the required amount of **RYDLYME** needed for a cooling tower system to include enough **RYDLYME** for the equipment load of the tower.



BEHIND THE APEX FLASK

THE FLASK

The Erlenmeyer flask (E-flask) is a bottle, usually of glass, having a conical base and a narrow cylindrical neck, used in scientific chemical laboratories. The flask is of an older design, signifying our passion and 75 year history.

THE GLOBE

Although our company is based in the United States, the globe represents the fact that we are truly a global company with international sales to over 80 different countries.

THE STAR

The star actually represents two concepts; it shows that we have brought bright ideas to market since 1942 and are always reaching for new technological innovations on the horizon.

THE ENTIRE LOGO

Epitomizes a familys' storied history, now in its 4th generation, dating back to 1942. We are extremely proud to be an ISO 9001:2008 Certified Company and home to the "World's Leading Biodegradable Descaler", **RYDLYME**, and the **RYDALL** line of degreasers, cleaners, odor eliminators, and water optimizers!



IN ACTION: **RYDALL MP**

Oil/carbon buildup is no match for **RYDALL MP**

An industrial cleaning contractor in Iowa was looking for a way to remove heavy oil/carbon buildup on a mixer they had received from a tire manufacturing plant. Due to the severity of the buildup, a 1:1 mixture of **RYDALL MP** was recommended to tackle this job.

RYDALL MP approach:

- 5 gallons of **RYDALL MP** diluted (1:1), sprayed on equipment, soaked for 20-30 minutes and rinsed with water.
- Total cleaning time, including cleanup of the wash bay, was 1 hour.

RYDALL MP results:

- Effectively cut through and released heavy buildup from the mixers surface in a short amount of time.

IN ACTION: **RYDALL WO**

Starch process puts **RYDALL WO** to the test

A specialty starch processor in Maine was intrigued by the capabilities of **RYDALL WO** in reducing the amount of produced sludge and its effluent BOD levels. Apex provided a small sample of **RYDALL WO** to the client for testing on a sample of its wastewater obtained from the sludge tank.

RYDALL WO approach:

- 200 ppm of **RYDALL WO** was added to the sample.
- The BOD level in the sample wastewater measured around 5,500 mg/l.

RYDALL WO results:

- After only 6 days time, the BOD level dropped significantly down to 75 mg/l!
- The client then decided to add **RYDALL WO** to their 350,000 gallon sludge tank with tremendous results.

FOUL TERRITORY

A whimsical concoction of information in the world of scale, grease, odors and more.

A foul, irritating odor surfaced at an Atlanta grocery store which disgusted numerous customers visiting the store.

“Obviously unhealthy,” a patron had said. “I dropped my cart and somebody I knew was saying hi to me and I didn’t even say hi, I just kept walking.”

A restoration company was at the store



cleaning up a rather ‘unusual’ spill in aisle 15.

The foul odor was coming from a back-up in a grease trap.

“It was smelling really bad throughout the whole store and they said it was something like a grease trap or something like that, but it had a really bad scent to it,” Another customer had said.

It sounds like this grocery store chain would be able to utilize **RYDALL OE** and remove odors from their grease traps to prevent more issues in the future!

[Click here](#) to read more about **RYDALL OE** and grease trap odor issues!

DESCALER & PUMPING SYSTEMS



RYDLYME biodegradable descaler is specifically designed to dissolve the toughest water scale, lime scale, mud and rust deposits from virtually any piece of water-based equipment. **NSF-certified.**



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

CLEANERS & DEGREASERS



RYDALL CC Coil Cleaner is a biodegradable coil cleaner specifically designed to clean dirt, grease and soil residue from air-exposed surfaces of critical cooling or heating equipment. **NSF-certified.**



RYDALL MP Multi Purpose Degreaser is a biodegradable, highly concentrated degreaser/cleaner that quickly and safely removes oil, grease, grime and other pollutants from all surfaces and components. **NSF-certified.**



RYDALL DD Definitive Degreaser is a biodegradable, heavy-duty degreaser used specifically on all carbon-based derivatives found on the oil and/or process side of your equipment or system.



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 product that vitalizes microorganisms already present on surfaces and help speed up their metabolic process to naturally rid surfaces of odor and disease-causing bacteria.

ODOR CONTROL & WATER TREATMENT



RYDALL OE Odor Eliminator is a unique, environmentally beneficial biocatalyst containing a complex mixture of natural nutrients, vitamins, and trace elements designed to eliminate industrial odors and corrosion problems.



RYDALL WO Water Optimizer is an environmentally beneficial additive that disallows the formation of H_2S , COD, BOD, FOG, TDS and TSS. This unique biocatalyst is also effective in enhancing methane production and O_2 content.

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For 75 years, 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 cleaners and degreasers, our products will decrease downtime and increase efficiency.

We are a fourth-generation, family-owned company renowned 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 knowledgeable technicians will work closely with you to determine the best solution for your facility's unique challenges. To further minimize your downtime, virtually all orders are shipped out within 24 hours.

Apex Engineering Products also takes great pride in being an ISO 9001:2008 Certified Company providing the highest level of support and quality of products to our customers...**another formula that hasn't changed in 75 years!**