



SPECIFICATIONS

1. **RYDLYME** is a non-hazardous, non-corrosive, non-injurious, non-toxic, yet fully *biodegradable* descaler, heavily fortified with wetting and penetrating agents which actually dissolves water scale, lime, mud, rust, and other water formed deposits from water operated equipment.
2. Certified to **NSF/ANSI 60** for use as a cleaner in potable water systems. **NSF Registered** for use in beverage, pharmaceutical, bottling, poultry, and other food processing plants. USFDA has no jurisdiction over the product, since it does not come in direct contact with food.
3. **RYDLYME** is non-corrosive, but the application of **RYDLYME** may expose pre-existing under deposit corrosion (pitting, holes or similar damage) that can result in leaks in pipes, equipment or systems.
4. **RYDLYME** should be used as directed and at any temperature within the operating limits of between 0°F / -18°C and 180°F / 82°C. If the solution does freeze, slush or thicken at the lower operating temperatures, and then thaws, there will be no performance reducing results. Please consult the manufacturer when temperatures above 180°F / 82°C are encountered.
5. The solution does not deteriorate, oxidize, saponify, thicken or lose effectiveness for at least five years.
6. Although almost any chemical reaction will react faster under elevated temperatures, **RYDLYME** should be applied at ambient temperatures (65°F / 10° C to 95°F / 24°C) with full effectiveness and results obtainable.
7. The solution is exothermic, but does not develop a substantial increase in temperature while dissolving water scale, lime, mud, rust or other water formed deposits. However, when **RYDLYME** comes in contact with strong caustics, a significant exothermic reaction could result with temperatures potentially exceeding 140°F / 60°C.
8. **RYDLYME** has the ability to dissolve approximately two pounds (1 Kilo) of calcium carbonate scale per U.S. gallon while at 70°F / 21°C, and in concentrated form. If the **RYDLYME** is diluted, it will still dissolve two pounds per gallon, but will require additional circulating time.
9. The concentrated solution can be held, safely, in the open hand without deleterious affects. However, if irritation occurs, a simple soap and water rinse is all that is required. If irritation persists, please consult a physician.
10. The solution is of a pleasant or characteristic odor, very similar to roasted almonds, and does not exude any obnoxious or toxic vapors.
11. An exception to number 10 is that hazardous vapors may occur when encountering high concentrations of sulfur, chlorine, or liquid TNT. Please contact the manufacturer before proceeding under these circumstances or review the MSDS of the chemical that **RYDLYME** may come in contact with for incompatibilities.
12. **RYDLYME** does not corrode, erode, attack, oxidize or have other deleterious affects on virtually any metal or materials commonly found in water systems such as:

COPPER
RUBBER

FIBER
STEEL

LEATHER
TITANIUM

IRON
GLASS

or other materials found in heat exchangers, vacuum pumps, evaporators, condensers, and/or other water cooled, water heated, or water operated equipment when used as directed.

13. An exception to number 12 is that when using 100% concentrated (non-diluted) **RYDLYME** on magnesium, zinc, and/or aluminum, it could oxidize or pit. Furthermore, polished chrome and some alloys of stainless steel could become discolored. It is not recommended for use with concentrated solutions. The rule of thumb is that if the alloy is designed for use in a water system (aluminum engine block, aluminum mold, etc.), the alloy should be compatible with the **RYDLYME** solution. Otherwise, it is recommended that the **RYDLYME** be diluted 50% or more with water when cleaning.
14. Before commencing a cleaning job utilizing **RYDLYME**, all flexible or corrugated stainless steel should be temporarily replaced with rubber or similar hosing.
15. It is recommended, but not mandatory, that the **RYDLYME** solution be thoroughly mixed before using. Some settling of a dark precipitate may occur with the majority of the liquid becoming a clear amber color. The use of the phased or non-agitated liquid will have no negative affects upon the performance of the solution.
16. The solution does not require neutralizers and it is free rinsing with water.
17. **RYDLYME** is an electrolyte, as are most cleaning agents. An electrolyte is any liquid that will transfer small electrical currents. Examples: salt water, vinegar, Coca-Cola. An electrolyte may cause plating in some types of equipment. This means a transfer of small amounts of one metal onto another metal according to the galvanic corrosion chart. In some instances, a thin coating of copper may be plated onto a steel drum while circulating an electrolyte such as **RYDLYME**. The only time plating occurs is when two dissimilar metals are in an electrolytic solution.
18. The solution has the ability to dissolve deposits from some equipment while in operation and without shutdown, either through the cooling tower or if auxiliary coolers are incorporated.
19. The solution has the properties to be mailed or shipped by any private or commercial carrier without restrictions. Air carriers for emergency deliveries may ship **RYDLYME** via next day air.
20. The solution is packaged and shipped in single gallon containers, 4x1 gallon cases, 5-gallon jugs, 30 and 55-gallon drums, 275 and 330 gallon totes, and 550 gallon megacontainers with lifting lugs.
21. Do not circulate material for more than a six-hour period without consulting the manufacturer. Most **RYDLYME** cleaning applications can be accomplished within an average of two to four hours. Please use material only as directed.
22. **RYDLYME** is designed to be used by itself or diluted with water and water only.
23. Agitating or circulating **RYDLYME** with compressed air is not recommended. Please consult the manufacturer with any questions.
24. The solution is biodegradable with a BOD value of 16 mg/l. This normally allows the solution to be water flushed down plant sewers. Check with local ordinances and regulations in your area prior to disposal.
25. **RYDLYME** is non-reportable under SARA Title 3: Sections 311/312/313 Categorization. **RYDLYME** does NOT contain any toxic creosols or other hazardous substances not listed in our current MSDS. **RYDLYME** does NOT contain any VOC's. **RYDLYME** is not reportable under CERCLA.
26. The foregoing specifications are applicable to our product, **RYDLYME**, when used according to instructions that are available upon request and in NO WAY are intended to cover other uses or applications by the purchaser.

*For additional details regarding the specifications of **RYDLYME**, please contact the technical department at APEX ENGINEERING PRODUCTS CORPORATION at 630-820-8888 or on our toll free number 800-451-6291.*