



SPECIFICATIONS

1. Apex Engineering Products Corporation manufactures a liquid descaler called **RYDLYME Marine**. **RYDLYME Marine** is a non-hazardous, non-corrosive, non-injurious, non-toxic, yet fully *biodegradable marine* descaler, heavily fortified with wetting and penetrating agents which actually dissolves water scale, rust, mussels, barnacles, zebra mussels, tiger shells and other water formed deposits from water operated marine equipment.
2. **RYDLYME Marine** should be used as directed and at any temperature within the operating limits 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 are encountered.
3. The solution does not deteriorate, oxidize, saponify, thicken or lose effectiveness for at least five years.
4. **RYDLYME Marine** should be applied at ambient temperatures with no heating required.
5. The solution is exothermic, but does not develop a substantial increase in temperature while dissolving water scale, rust, mussels, barnacles, zebra mussels, tiger shells and other water formed deposits.
6. **RYDLYME Marine** has the ability to dissolve approximately two pounds (1 Kilo) of calcium carbonate scale per U.S. gallon in concentrated form. If the **RYDLYME Marine** is diluted, it will still dissolve two pounds of carbonate scale per gallon, but will require additional circulating time.
7. The concentrated solution can be held safely in the open hand without deleterious affects. It will however cause a stinging sensation when contact is made on an open wound or cut. If this occurs, simply rinse thoroughly with soap and water.
8. The solution is of a pleasant or characteristic odor, very similar to cherries, and does not exude any obnoxious or toxic vapors. In rare instances, problematic vapors may occur when encountering high concentrations of sulfur or chlorine. Please contact the manufacturer before proceeding under these circumstances.
9. **RYDLYME Marine** does not corrode, erode, attack, oxidize or have other deleterious affects on virtually any metal or materials found in marine water systems such as:

| | | | |
|--------|-------|----------|------------------|
| COPPER | FIBER | LEATHER | COPPER NICKEL |
| RUBBER | STEEL | TITANIUM | FIBERGLASS |
| BRASS | GLASS | GELCOATS | PAINTED SURFACES |
| WOOD | IRON | PLASTICS | CERAMIC |

or other materials found in heat exchangers, sea strainers, buoys, ac units, evaporators, condensers, and/or other water cooled, water heated, or water operated marine equipment found in boating vessels, when used as directed.

10. The exception to number 9 above, when using 100% concentrated (non-diluted) **RYDLYME Marine** on magnesium, zinc, and/or some alloys of aluminum, it could oxidize or pit. Furthermore, polished chrome and some alloys of stainless steel could become discolored. 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 Marine** solution. Otherwise, it is recommended that the **RYDLYME Marine** be diluted 50% or more with water when cleaning.
11. Before commencing a cleaning job utilizing **RYDLYME Marine**, all flexible or corrugated stainless steel should be temporarily replaced with rubber or similar hosing.
12. It is recommended, but not mandatory, that the **RYDLYME Marine** solution be thoroughly mixed before using. Some settling of a dark precipitate may occur, resulting in an amber colored liquid, but has no negative affects upon the performance of the solution.
13. The solution has a specific gravity of 1.03 @ 77°F / 25°C.
14. The solution has a vaporization temperature of 213°F / 100°C.
15. The solution does NOT have an open or closed cup flash point.
16. The solution does not require neutralizers and it is free rinsing with water.
17. **RYDLYME Marine** 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 Marine**. 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, 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 Marine** 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, 330 gallon totes, and 550 gallon megacontainers with lifting lugs.
21. Do not circulate material for more than a four-hour period without consulting the manufacturer. Most **RYDLYME Marine** cleaning applications can be accomplished within an average of two to four hours. Please use material only as directed.
22. The foregoing specifications are applicable to our product, **RYDLYME Marine**, 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.

The solution is biodegradable. This allows the solution to be water flushed down normal plant sewers. Check with local ordinances and regulations in your area prior to disposal.

RYDLYME Marine is non-reportable under SARA Title 3: Sections 311/312/313 Categorization. **RYDLYME Marine** does NOT contain any toxic creosols or other hazardous substances not listed in our current MSDS. **RYDLYME Marine** is not reportable under CERCLA. **RYDLYME Marine** does not contain any VOC's.

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