

REVISED AUGUST 2013

APEX ENGINEERING PRODUCTS CORPORATION
1241 Shoreline Drive
Aurora, IL 60504
Phone Number 800-451-6291 or 630-820-8888 Fax 630-820-8886

For Chemical Emergency, Spill, Leak, Fire Exposure or Accident
Call CHEMTREC Day or Night
DOMESTIC NORTH AMERICA 800-424-9300
INTERNATIONAL, CALL 703-527-3887 (collect calls accepted)

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION AND MANUFACTURER

Trade Name

RYDLYME (pronounced: *rid-lime*)

Manufacturer Information

Apex Engineering Products Corporation, established 1942
1241 Shoreline Drive
Aurora, Illinois 60504
Emergency Phone: 800-424-9300 (Domestic), 703-527-3887 (International)



2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

Proprietary, confidentiality required

Chemical Family

Water Scale Solvent

3. HAZARDOUS INGREDIENTS/IDENTIFICATION

Material or Component	CAS No.	TLV (p.p.m.)	Approximate %
Hydrogen Chloride, Aqueous	7647-01-0	5	Less Than 10

NOTE: Material is aqueous organic salt solution and as such should **NOT** be considered hazardous under normal use conditions.

NOTE: Laboratory test indicate material to be **BIODEGRADABLE**. Certified to NSF/ANSI 60. NSF certified for use in beverage, pharmaceutical, bottling, poultry and other food processing plants. USFDA has no jurisdiction over this product, since it never comes in direct contact with food.

4. FIRST AID MEASURES

Inhalation

Material is an aqueous organic salt solution and as such has little vapor pressure and no noxious fumes.

Eye Contact

Copious water rinse. Consult physician if irritation persists.

Skin Contact

Copious water rinse. Consult physician if irritation persists.

Ingestion

Do not induce vomiting – drink milk, egg whites, etc. Consult a physician.

5. FIRE FIGHTING MEASURES

Flash Point:

No flash point, extinguishes flame

Auto-ignition Temperature:

Not Applicable

Lower Explosive Limit:

Not Applicable

Upper Explosive Limit:

Not Applicable

Unusual Fire & Explosion Hazards

Non-combustible or explosive. Breathing apparatus recommended.

Extinguishing Media

Does not support combustion.

Special Fire Fighting Procedures

None-Water will control, as will CO₂ and dry chemicals.

Personal Protective Equipment

As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH

Approved or equivalent and full protective gear).

6. ACCIDENTAL RELEASE MEASURES

Personal Protection

Eye protective safety glasses with side shields are recommended, however not mandated.

Area isolation is not necessary, as product is of no risk to personnel.

Procedures

Rinse area with copious amounts of water to dilute. Sodium bicarbonate may also be used to absorb and/or neutralize liquid. Material is fully **biodegradable** and may be disposed of down normal sewer system, with water flush in accordance with the local, State, Provincial, and Federal regulations for your location.

7. HANDLING AND STORAGE

Storage Conditions

Preserve integrity of container. The recommended storage temperature is between -12C/10F and 81C/180F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Threshold Limit Value

None for total, material is an aqueous organic salt solution and as such has little vapor pressure and no noxious fumes.

Effects of Overexposure

Should not be considered hazardous when used as directed.

Respiratory Protection

None required under normal operating conditions, even when materials vapors and/or mists occur.

Eye Protection

Usage of safety glasses, with side shields are recommended, however not mandated.

Hand Protection

Recommended however not mandated. Material is non-toxic and can be held in the open hand without risk.

Engineering Controls (Ventilation)

Use normal exhaust, vent to atmosphere.

Other Protective Equipment

As recommended by plant safety department. Aprons may be worn to prevent clothing from stains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark Liquid
Color:	Black
State:	Liquid
Odor Characteristics:	Comparable to Almonds
pH:	Unreadable, generally < 3
Viscosity:	Comparable to Water
Specific Gravity (Water = 1):	1.045
Vapor Density (Air = 1):	>1
Vapor Pressure:	30 Torr.
Boiling Point:	101C/213F
Solubility in Water:	Miscible
Percent Volatility:	99.6
Evaporation Rate (Water = 1):	<1

10. STABILITY AND REACTIVITY_____

Instability

This material is considered stable.

Hazardous Decomposition

None

Hazardous Polymerization

Product will not undergo polymerization.

Incompatibility

Avoid contact with the following: strong caustics.

11. TOXICOLOGY_____

Acute Data

Some tests indicate that long-term exposure may be corrosive to the eyes of New Zealand albino rabbits. None of the ingredients found in the solution are known carcinogens.

Mutagenicity Data

Non-mutagenic.

12. ECOLOGICAL INFORMATION_____

Environmental Toxicity

Non-toxic, EPA approved as fully biodegradable and environmentally non-hazardous. Using procedures and protocols specified in the latest edition of Standard Methods for the Examination of Water and Waste Water, APHA, AWWA, WPCF, the BOD was performed on the sample with the following results: BOD: 16mg/l.

13. DISPOSAL CONSIDERATIONS_____

Procedures

Dispose of used or unused product, and empty containers in accordance with the local, State, Provincial, and Federal regulations for your location. Material is biodegradable as received.

14. TRANSPORT INFORMATION_____

US DOT Hazard Class

Class 55 (NMFC 50093 Sub 2): Non-regulated/Non-restricted. The solution has the properties to be mailed or shipped by any private or commercial carrier without restrictions.

15. REGULATORY INFORMATION

Working Classification

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200-1500), including Subpart Z.

This product complies with all current Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA Title 3: Section 311/312/313 Categorization (40CFR 370)

Considered non-reportable.

CERCLA Information (40CFR 302.4)

Release of this material to air, land or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or to state and local Emergency planning committees under the Superfund Amendments and Reauthorization Act).

Waste Classification

When a decision is made to discard this material as supplied, it does not meet RCRA'S characteristics definition of ignitibility, corrosivity, or reactivity and is not listed in 40CFR 261.33.

United States

All components of this product are in compliance with the inventory listing requirements of U.S. Toxic Substance Control Act (TSCA Chemical Substance Inventory).

16. OTHER INFORMATION

Please use material only as directed. If procedures are not published for your particular application, please call for assistance. Furthermore, **RYDLYME** is designed to be used by itself or diluted with water and water only. Do not heat. Use **RYDLYME** at an ambient temperature. Vent circulating solution to atmosphere. Some adverse reactions may occur with some alloys of aluminum, magnesium, and/or zinc. Please consult the manufacturer.

CAUTION: **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.**

**FOR ADDITIONAL INFORMATION, PLEASE REVIEW THE RYDLYME SPECIFICATIONS OR
CONTACT OUR MANUFACTURING FACILITY AT 630-820-8888.**

This data is furnished independent of any sales of the product only for your investigation and independent verification. While information is believed to be correct, Apex Engineering Products Corporation shall in no event be responsible for any damage whatsoever, directly or indirectly, resulting from the publication or use of or reliance upon data contained herein. No warranty, either expressed or implied, of merchantability, of fitness, or of any nature with respect to the product, or to the data, is made herein.