

MATERIAL SAFETY DATA SHEET
REVISED AUGUST 2013

APEX ENGINEERING PRODUCTS CORPORATION

1241 Shoreline Drive
Aurora, Illinois 60504
Phone: 800-451-6291 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)

PRODUCT INFORMATION

TRADE NAMES OR SYNONYMS:	RYDLYME, RID-LIME
FORMULA:	PROPRIETARY, CONFIDENTIALITY REQUIRED
CHEMICAL FAMILY:	WATER SCALE CLEANER

HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	TLV (p.p.m.)	PEL (p.p.m.)	APPROXIMATE % LESS THAN 10
HYDROGEN CHLORIDE, AQUEOUS	5	5	

NOTE: Laboratory tests indicate material to be **BIODEGRADABLE**. Certified to NSF/ANSI 60. 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. Non-reportable under SARA Title 3: Section 311/312/313 Categorization. Not reportable under CERCLA.

PHYSICAL DATA

BOILING POINT:	213° F / 101° C.
FREEZING POINT:	0° F / -18° C
SOLUBILITY IN WATER:	MISCIBLE
SPECIFIC GRAVITY, (WATER=1):	1.045
VAPOR PRESSURE:	30 TORR.
VAPOR DENSITY, (AIR=1):	GREATER THAN 1
PERCENT VOLATILE BY VOLUME:	99.6
APPEARANCE:	DARK LIQUID
ODOR:	ROASTED ALMONDS
pH:	UNREADABLE, GENERALLY < 3
EVAPORATION RATE, (WATER=1):	SLOW
PHYSICAL STATE:	LIQUID

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	NO FLASH POINT, EXTINGUISHES FLAME
EXTINGUISHING MEDIA:	DOES NOT SUPPORT COMBUSTION
SPECIAL FIRE FIGHTING PROCEDURES:	NONE-WATER WILL CONTROL, OR CO2/DRY CHEMICALS
UNUSUAL FIRE & EXPLOSION HAZARDS:	NON-COMBUSTIBLE OR EXPLOSIVE. BREATHING APPARATUS RECOMMENDED

HMIS

HEALTH:	0
FLAMMABILITY:	0
REACTIVITY:	0
PERSONAL PROTECTION:	B

HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE:
EMERGENCY & FIRST AID:

SHOULD NOT BE CONSIDERED HAZARDOUS WHEN USED AS DIRECTED.
IF EYE/SKIN CONTACT, COPIOUS WATER RINSE. CONSULT PHYSICIAN.
NOT TO BE TAKEN INTERNALLY. IF INGESTED-DO NOT INDUCE VOMITING-
DRINK MILK, EGG WHITES, ETC. AS DIRECTED BY PHYSICIAN.

NOTE:

ADVERSE EFFECTS ON HUMAN HEALTH ARE NOT EXPECTED FROM THE
RYDLYME SOLUTION, BASED UPON 70+ YEARS OF USE WITHOUT
REPORTED ADVERSE HEALTH INCIDENCE IN DIVERSE POPULATION
GROUPS, INCLUDING EXTENSIVE USE IN THE U.S. ARMED FORCES.

REACTIVITY DATA

STABILITY:
INCOMPATIBILITIES:
HAZARDOUS DECOMPOSITION PRODUCTS:
HAZARDOUS POLYMERIZATION:
CONDITIONS TO AVOID:

STABLE
STRONG CAUSTICS
NONE
WILL NOT OCCUR
EXCESSIVE HEATING

SPILL AND DISPOSAL PROCEDURES

ACTION TO TAKE FOR SPILLS:

RINSE WITH COPIOUS AMOUNTS OF WATER TO DILUTE. SODIUM
BICARBONATE MAY ALSO BE USED TO SOAK UP AND NEUTRALIZE LIQUID,
IF NECESSARY.

DISPOSAL METHOD:

EXPENDED OR USED MATERIAL MAY BE DISPOSED OF DOWN SEWER WITH
WATER FLUSH IN ACCORDANCE WITH THE LOCAL, STATE, PROVINCIAL, AND
FEDERAL REGULATIONS FOR YOUR LOCATION. MATERIAL IS
BIODEGRADABLE-EVEN IN AS RECEIVED FORM.

SPECIAL HANDLING INFORMATION

VENTILATION:
RESPIRATORY:
PROTECTIVE GLOVES:
EYE PROTECTION:
OTHER PROTECTIVE EQUIPMENT:

NORMAL (MECHANICAL)
NONE
RECOMMENDED, SUCH AS NEOPRENE GLOVES.
RECOMMENDED, SUCH AS CHEMICAL GOGGLES.
AS RECOMMENDED BY PLANT SAFETY DEPARTMENT. TO PREVENT
STAINING OF CLOTHES, WEAR AN APRON.

SPECIAL PRECAUTIONS

HANDLING AND STORING:
CAN MATERIAL BE STORED OUTSIDE?
OTHER PRECAUTIONS:

PRESERVE INTEGRITY OF CONTAINER.
YES, MAINTAIN TEMPERATURE BETWEEN 10°-180° F.

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 800-451-6291.**

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. This MSDS has been reviewed by the U.S. Department of Labors' Chicago District Office.



Summary

S-F Analytical Laboratories conducted acute toxicity tests on Rydlyme (a water scale solvent) for Rydlyme Sales & Service, Plainfield, Illinois. The bioassays were conducted from October 29 through November 2, 1998, as a part of a water additive toxicity evaluation, required by the State of Michigan. *Daphnia magna* and fathead minnows were used as the test organisms. The following is a summary of the test results:

Test Media	Acute Toxicity as LC ₅₀	
	<i>Daphnia magna</i> (48-Hour)	Fathead Minnow (96-Hour)
Rydlyme	0.77%	0.52%

The results of the toxicity tests show that:

- The laboratory control data met the acceptable survival criterion in both tests.
- The toxicity reported in the tests met the survival and mortality criteria for determining an LC₅₀.