

Safety Data Sheet

Product Name: RG212: Hardness-2 (Hard-2)

Revision Date: June 4, 2015

Page 1 of 5

Section #1: Chemical Product and Company Identification

Product Name: RG212: Hardness-2 (Hard-2)

Other mean of identification: None

Chemical use/Restrictions: For industrial, commercial, institutional use only. Not intended for household use.

Manufacturer / Distributor: Enerco Corporation

Address: 317 N. Bridge St., Grand Ledge, MI 48837

Telephone: (800) 292-5908

Fax: (517) 627-8037

For chemical emergency - spill, leak, fire, exposure or accident - call CHEMTREC - day or night - (800) 424-9300

Section #2: Hazards Identification

Signal Word: **Warning**



Exclamation
Mark



Health
Hazard

<u>Classification Number and Name</u>	<u>Appendix Reference</u>	<u>Hazard Statement</u>	<u>Hazard Category</u>
C.4.1 Acute Toxicity - Oral	A.1	Harmful if swallowed	4
C.4.4 Skin Corrosion/Irritation	A.2	Causes skin irritation	2
C.4.5 Eye Damage/Irritation	A.3	Causes eye irritation	2B
C.4.9 Carcinogenicity	A.6	Suspected of causing cancer	2

Precautionary Statements

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wash exposed body parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Immediately call a poison center/doctor.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Storage

Store locked up.

Disposal

Dispose of contents/container to comply with all local, state, and federal regulations.

Other Hazards: No other hazards identified during the classification process.

Unknown Acute Toxicity: No ingredients of unknown toxicity.

Safety Data Sheet

Product Name: RG212: Hardness-2 (Hard-2)

Revision Date: June 4, 2015

Continued from previous page...

Page 2 of 5

Section #3: Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight %</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
<input checked="" type="checkbox"/> Triethanolamine	102-71-6	65-75%	unknown	unknown
<input checked="" type="checkbox"/> Ethanol	64-17-5	24-26%	unknown	unknown

Indicates hazardous substances. Remainder of components comprise proprietary information. This document is prepared pursuant to the OSHA Hazard Communication Standard, 29 CFR 1910.1200. In addition, other substances not "hazardous" per this OSHA standard may be listed.

Section #4: First Aid Measures

EMERGENCY OVERVIEW: Can be an irritant to severe irritant with possible damage to eyes, skin, upper respiratory tract, and mucous membranes.

Eye: Immediately flush with water for 15 minutes. Be sure eyelids are held open during flushing. If irritation occurs, consult physician.

Skin: Remove contaminated clothing and footwear. Flush with water and soap for at least 15 minutes. If irritation occurs, consult physician.

Inhalation: Remove to fresh air if effects occur. If breathing is difficult, give oxygen. If not breathing, perform artificial respiration. Get medical attention immediately.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Dilute immediately with water or milk. Get medical attention immediately.

Potential Health Effects: See Section 11 For Toxicological Data.

Effects of Acute Exposure: Eyes: May cause irritation to severe irritation with possible damage.

Skin: May cause irritation to severe irritation.

Inhalation: May cause irritation to severe irritation. Exposure to high concentrations may have anarcotic effect.

Ingestion: May cause nausea, vomiting, diarrhea and cramps.

Effects of Chronic Exposure: Normal use of this product does not result in chronic exposure.

Medical Conditions Generally Aggravated by Exposure: Pre-existing upper respiratory and lung diseases and pre-existing skin diseases may be aggravated. Repeated ingestion or repeated prolonged exposure of Triethanolamine has caused liver and kidney damage in animals.

Section #5: Fire-Fighting Measures

NFPA Hazard Codes - (Health / Flammability / Reactivity):

2 / 3 / 0

NFPA Code Legend

4 - Severe Hazard
3 - Serious Hazard
2 - Moderate Hazard
1 - Slight Hazard
0 - Minimal Hazard

Extinguishing Media: Water fog, dry chemical, carbon dioxide, foam. Water spray may be used to keep fire-exposed containers cool.

Unusual Fire and Explosive Hazards: Highly flammable in presence of open flames and sparks or oxidizing materials. Flammable in presence of reducing materials. Slightly flammable to flammable in presence of heat or combustible materials. Vapors can flow along surfaces to distant ignition source and flash back.

Special Fire Fighting Procedures: Fire fighters should wear full protective gear including self-contained breathing apparatus.

Continued on next page...

Printed on: Thursday, February 25, 2016

Safety Data Sheet

Product Name: RG212: Hardness-2 (Hard-2)

Revision Date: June 4, 2015

Continued from previous page...

Page 3 of 5

Section #6: Accidental Release Measures

Spill and Leak Procedure: Small spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal container.
Finish cleaning both small and large spills by spreading water on the surface. Water must go to a treatment plant, not to the environment.

Disposal: Dispose of in accordance with all applicable federal, state, and local health and environmental standards and regulations.

Section #7: Handling and Storage

Precautions to be Taken in Handling: Avoid contact with eyes, skin, and clothing.
Keep container tightly closed when not in use.
Avoid breathing vapor. Do not ingest.
Wash thoroughly after handling.

Precautions to be Taken in Storage: Store in a cool, dry, well ventilated, secure place.
Keep away from incompatibles.
Keep away from heat. Keep away from sources of ignition.
Do not store near combustible materials.
Store below 120°F and above 40°F
Keep container tightly closed.

Section #8: Exposure Controls / Personal Protection

Permissible Exposure Limits: ACGIH: 5 mg/m³ for Triethanolamine
ACGIH: 1884 mg/m³ for Ethanol

Ventilation: Provide adequate exhaust ventilation to control work place concentrations.

Eye Protection: Chemical splash goggles and/or face shield. Eyewash fountain in the work place is strongly recommended.

Skin Protection: Chemical resistant gloves. Shower in the work place is strongly recommended.

Respiratory Protection: Use adequate ventilation to keep airborne levels below the exposure limits. Respiratory protection may be required for work areas where exposure by inhalation may occur and engineering, work practice or other means of exposure reduction are not adequate.

Other Protection Equipment: Any other protective clothing or use of equipment necessary to prevent eye and skin contact.

Section #9: Physical and Chemical Properties

Appearance: Dark Blue Liquid

Odor: Slight

Odor Threshold: No Information Available.

pH (1% sol'n, unless noted): 8.5-9.5

Melting Point (deg. F): No Information Available.

Boiling Point (deg. F): >212

Flash Point: Not Available

Evaporation Rate: Not Available

Flammability (NFPA Rating): 3

Flammable Limits: Not Available

Vapor Pressure: 0.01Mm Hg@20°C (TEA)

Vapor Density: 5.1 (Air=1) (TEA)

Relative Density: No Information Available.

Solubility in Water: Complete

Partition Coefficient: No Information Available.

Auto-ignition (deg. F): No Information Available.

Decomposition (deg. F): No Information Available.

Viscosity: No Information Available.

Safety Data Sheet

Product Name: RG212: Hardness-2 (Hard-2)

Revision Date: June 4, 2015

Continued from previous page...

Page 4 of 5

Section #10: Stability and Reactivity

Reactivity (NFPA Rating): 0

Chemical Stability: Stable

Hazardous Reactions: Will Not Occur

Conditions to Avoid: Temperatures above 120°F or below 40°F, direct sources of heat, sparks, and flame

Incompatibility: Oxidizing Agents, Reducing Agents, Organic Materials, Metals, Acids

Hazardous Decomposition Products: Oxides Of Carbon And Nitrogen

Section #11: Toxicological Information

Skin and eye (irritation) are expected to be the primary target organs of this product. Can be an irritant to severe irritant with possible damage to eyes, skin, upper respiratory tract, and mucous membranes.

Triethanolamine: LD50 2200 mg/kg Rabbit

Ingredients as Carcinogens: To the best of our knowledge, this product does not contain any substances that are considered by OSHA, NTP, IARC, or ACGIH to be 'probable' or 'suspected' human carcinogens.

Section #12: Ecological Information

No data available

Section #13: Disposal Considerations

Best route is to use product for its originally intended purpose. Dispose of in accordance with all applicable environmental standards and in accordance with all local, state, and federal laws and regulations.

Section #14: Transport Information

DOT Proper Shipping Name:

DOT Hazard Class:

DOT Label:

DOT UN Number:

DOT Packing Group:

The shipping name listed above applies to a 55 gallon drum size (~500 lbs) of the product offered for ground transport. This product may have more than one proper shipping name, depending on packaging, product properties, and mode of shipment.

Safety Data Sheet

Product Name: RG212: Hardness-2 (Hard-2)

Revision Date: June 4, 2015

Continued from previous page...

Page 5 of 5

Section #15: Regulatory Information

TSCA: All Ingredients Are On The TSCA Inventory Or Are Not Required To Be Listed On The TSCA Inventory.

RCRA Hazard Class: No Components Of This Product Are Listed.

CERCLA RQ: No Components Of This Product Are Listed.

SARA Title III

Extremely Hazardous Substance: No Components Of This Product Are Listed.

Hazardous Substance: Hazard Due To: Irritant

Hazard Catagorization: Sudden Release of Pressure Immediate (Acute) Health
 Reactive Delayed (Chronic) Health
 Fire

Section 313 Chemicals: No Components Of This Product Are Listed.

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CHEMICAL	CAS NUMBER	LIST
Ethanol	64-17-5	MA,MN,PA1
Triethanolamine	102-71-6	MA,MN,PA1

MA=Massachusetts Hazardous Substance MN=Minnesota Hazardous Substance PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1%)

Section #16: Other Information

Revision Date: June 4, 2015

This product is a testing reagent. The use rate is drops to mls. per day. The normal amount purchased is = or < a quart.

We believe that the statements, technical information, and recommendations contained herein are reliable. However, since data, safety standards, and government regulations are subject to change and conditions of handling and of use or misuse are beyond our control, and since health and safety precautions given may not be adequate for all individuals and/or situations, we make no warranty, either expressed or implied, with respect to the continuing accuracy of the information contained herein.