SAFETY DATA SHEETS

This SDS packet was issued with item:

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N/A



MATERIAL SAFETY DATA SHEET TARTAR, LIGHT STAIN & PERMANENT CEMENT REMOVER

PCN(s) 232, 231 Publication Date: 2-14-2013 REV: K

1. SUPPLIER AND EMERGENCY INFORMATION Emergency Phone Numbers:

L&R Manufacturing Company 577 Elm Street, P.O. Box 607 Kearny, NJ 07032 - 0607 USA Product Information Call: **201-991-5330** www.lrultrasonics.com For emergencies involving a spill, leak,

fire or accident contact:

CHEMTREC - 800-424-9300

within the United States or (01)**703-527-3887** [USA] for International collect calls

2. HAZARDS IDENTIFICATION

Physical appearance and odor: Colorless liquid with mild sweet odor.

A: WARNING STATEMENT: Good industrial hygiene practices should be used when handling this material.

Acute Eyes: Direct contact causes irritation, redness and possible tearing.

Acute Skin: Prolonged or repeated contact causes redness, and drying of the skin.

Acute Inhalation: Breathing high concentrations of vapors or mists may cause irritation to the nose and throat.

Acute Ingestion: Product is acidic and will cause irritation to the stomach and mucous membranes.

B: POTENTIAL HEALTH EFFECTS:

Chronic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogen.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage
Water	7732-18-5	80 - 88
Amidosulfamic Acid	5329-14-6	10 -15
Sodium 2-Ethylhexyl Sulfate	126-92-1	1 - 5

4. FIRST AID MEASURES

Eye Exposure: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure: Wash thoroughly with water. If irritation or redness develops, seek medical attention.

Inhalation: If respiratory irritation or distress occurs, move victim to fresh air. Seek medical attention if respiratory irritation or distress continues

Ingestion: Seek immediate medical attention. DO NOT INDUCE VOMITING, Give large quantities of water if conscious.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA: NOT COMBUSTIBLE

Suitable Extinguishing Media: Extinguish surrounding fire with dry chemical, CO2 or a BC/ABC extinguisher.

Special Fire Fighting Procedures: None known

Unusual Fire and Explosion Hazards: Closed containers may burst due to build up of pressure when exposed to extreme heat.

Hazardous Decomposition Materials: (under fire conditions) None known..

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Mop up spill and dispose of by dilution to a sanitary sewer system as permitted by local, state and federal regulations.

Regulatory Reporting: Not required

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: 40 to 100° F. Protect from freezing. Freezing will cause crystallization of this product. Product may be thawed in hot water and then mixed vigorously to re-dissolve.

HANDLING: AVOID CONTACT WITH SKIN, EYES OR CLOTHING

8. EXPOSURE CONTROL/PERSONAL PROTECTION

General: These recommendations provide general guidance for handling of this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. When developing safe handling procedures, do not overlook the need to clean and dispose of the material. Waste resulting from the use of this product should be handled in accordance with Section 13: Disposal Considerations.

Exposure Guidelines: Exposure limits are recommended worker breathing limits. The following limits apply to this material:

INGREDIENTS LIMITS
Amidosulamic Acid None established Sodium 2-Ethylhexyl Sulfate none established

Engineering Controls: Normal room ventilation.

Respiratory Controls: For reasonable uses of this material, respiratory protection should not be necessary.

Eye/Face Protection: Safety glasses to protect from splashing.

Skin Protection: Rubber or plastic gloves to avoid drying and irritation to the skin.

Work Practice Control: Normal hygiene in the work area should be taken when working with or handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

 Physical State: Clear liquid
 Color: Colorlesss
 Odor: Mild Sweet odor

 pH: 1.2 as supplied
 Specific Gravity: 1.07
 Odor Threshold: Not available

 Water Solubility: Soluble
 Melting Point Range: Not available
 Evaporation Rate: Not Applicable

Freezing Point Range: < 32°F

Boiling Point: Approx. 212 degrees °F

Vapor Pressure: Not established

Vapor Density: Not established

Partition Coefficient; n-octanol / water: Not available

Decomposition Temperature: Not available

Flash Point: None to boiling Method: Tag Closed Cup Auto Ignition Temperature: Not available

Flammability limits (vol/vol %): Lower: No Data Upper: No Data

Percent volatile by volume: Approx. 85% as water **V.O.C.** (calculated): < 0.05 lbs./ gal or < 5 grams / 1.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to be avoided: Excessive heat.

Materials/Chemicals to be avoided: Strong bases, nitrates, nitrites, chlorates, chlorine, hypochlorite, cyanides or sulfides.

Decomposition Type: Thermal: May release oxides of sulfur or ammonia gases.

Possibility of Hazardous Reactions: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: Irritating to eyes.

Acute Skin Irritation: No test data found for product.
Acute Dermal Toxicity: No test data found for product.
Acute Respiratory Irritation: No test data found for product.
Acute Inhalation Toxicity: May cause nose and throat irritation..
Acute Oral Toxicity: Sulfamic Acid, LD50 rat = 3160 mg/kg

Sodium 2-Ethylhexyl Sulfate, LD50 rat = 4 grams/kg

Chronic Toxicity: This product does not contain any substances that are considered by OSHA, NTP, IARC OR ACGIH to be a probable or suspected human carcinogen. No additional test data was found for this product.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data found.

13. DISPOSAL CONSIDERATIONS

This product can be disposed in sanitary sewer system, with dilution, where permitted by local, federal and state regulations.

14. TRANSPORTATION INFORMATION

For approved domestic ground shippers, product is classified as ORM-D for containers of one (1) gallon or less shipped by domestic ground transportation. For all other shippers, containers: Corrosive liquid, n.o.s. FOR EXPORT: Corrosive liquid, Acidic, inorganic n.o.s. (contains Sulfamic Acid), UN3264, 8, Packing Group III, EMS 8-15 Do not stack cartons more than five high.

15. REGULATORY INFORMATION

Inventory Issues: All components of this product are listed on the U.S. TSCA, Canadian DSL, European EINECS/ELINS chemical listings

16. OTHER INFORMATION

National Fire Protection Association

Hazard Rating, NFPA Health Flammability Reactivity Special 2 0 0 --

MSDS CHANGES

 REV
 DATE
 DESCRIPTION OF CHANGE

 I
 2/25/08
 Added PCN 231

 J
 8/17/11
 Reviewed/Updated

 K
 2/14/13
 Transportation Updated

Disclaimer: The information herein is given in good faith but no warranty expressed or implied is made.

Prepared By: L&R Manufacturing Company Date: 2/14/2013

Product Name: TARTAR, LIGHT STAIN & PERMANENT CEMENT REMOVER



1. Identification of Substance and Manufacturer:

TARTAR, LIGHT STAIN & PERMANENT CEMENT REMOVER PCN 232,231

Use: Ultrasonic Cleaning Solution. Use as is.

Manufacturer: L&R Manufacturing Company, 577 Elm Street, P.O. Box 607 Kearny, NJ 07032-0607 USA.

Publication Date: 3/18/2014 REV: L

Product information call 201-991-5330 www.lrultrasonics.com

For emergencies involving a spill, leak fire or accident contact CHEMTREC 800-424-9300 with the United

States. Or (01) 703-527-3887 (USA) for International collect calls

2. HAZARDS IDENTIFICATION



WARNING! CORROSIVE. IRRITANT. MAY BE HARMFUL IF SWALLOWED.

Good industrial hygiene practices should be used when handling this material.

Acute Eves: Direct contact causes irritation, redness and possible tearing.

Acute Skin: Prolonged or repeated contact causes redness, and drying of the skin.

Acute Inhalation: Breathing high concentrations of vapors or mists may cause irritation to the nose and throat.

Acute Ingestion: Product is acidic and will cause irritation to the stomach and mucous membranes.

B: POTENTIAL HEALTH EFFECTS:

Chronic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogen.

Do not use directly in the tank.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage
Water	7732-18-5	80 - 88
Amidosulfamic Acid	5329-14-6	10 -15
Sodium 2-Ethylhexyl Sulfate	126-92-1	1 - 5

The exact concentration of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Eye Exposure: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure: Wash thoroughly with water. If irritation or redness develops, seek medical attention.

Inhalation: If respiratory irritation or distress occurs, move victim to fresh air. Seek medical attention if respiratory irritation or distress

continues.

Ingestion: Seek immediate medical attention. DO NOT INDUCE VOMITING, Give large quantities of water if conscious.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA: NOT COMBUSTIBLE

Suitable Extinguishing Media: Extinguish surrounding fire with dry chemical, CO2 or a BC/ABC extinguisher.

Special Fire Fighting Procedures: None known

Unusual Fire and Explosion Hazards: Closed containers may burst due to build up of pressure when exposed to extreme heat.

Hazardous Decomposition Materials: (under fire conditions) None known.

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Mop up spill and dispose of by dilution to a sanitary sewer system as permitted by local, state and federal regulations.

Regulatory Reporting: Not required

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: 40°F to 100°F, 4°C to 88°C. Protect from freezing. Freezing will cause crystallization of this product. Product may be thawed in hot water and then mixed vigorously to re-dissolve.

HANDLING: AVOID CONTACT WITH SKIN, EYES OR CLOTHING

8. EXPOSURE CONTROL/PERSONAL PROTECTION

General: These recommendations provide general guidance for handling of this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. When developing safe handling procedures, do

not overlook the need to clean and dispose of the material. Waste resulting from the use of this product should be handled in accordance with Section 13: Disposal Considerations.

Exposure Guidelines: Exposure limits are recommended worker breathing limits. The following limits apply to this material:

INGREDIENTS LIMITS INGREDIENTS LIMITS Amidosulfamic Acid None established Sodium 2-Ethylhexyl Sulfate none established

Partition Coefficient; n-octanol / water: Not available

Decomposition Temperature: Not available

Auto Ignition Temperature: Not available

Viscosity: Similar to water

Engineering Controls: Normal room ventilation.

Respiratory Controls: For reasonable uses of this material, respiratory protection should not be necessary.

Eye/Face Protection: Safety glasses to protect from splashing.

Skin Protection: Rubber or plastic gloves to avoid drying and irritation to the skin.

Work Practice Control: Normal hygiene in the work area should be taken when working with or handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear liquid Color: Colorless Odor: Mild Sweet odor **pH:** 1.2 as supplied Specific Gravity: 1.07 Odor Threshold: Not available Water Solubility: Soluble Melting Point Range: Not available Evaporation Rate: Not Applicable

Freezing Point Range: < 32°F, 0°C **Boiling Point:** Approx. 212 °F, 100 °C

Vapor Pressure: Not established Vapor Density: Not established Flash Point: None to boiling Method: Tag Closed Cup

Flammability limits (vol/vol %): Lower: No Data Upper: No Data

Percent volatile by volume: Approx. 85% as water $V.\overline{O.C.}$ (calculated): < 0.05 lbs. / gal or < 5 grams / 1.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to be avoided: Excessive heat.

Materials/Chemicals to be avoided: Strong bases, nitrates, nitrites, chlorates, chlorine, hypochlorite, cyanides or sulfides.

Decomposition Type: Thermal: May release oxides of sulfur or ammonia gases.

Possibility of Hazardous Reactions: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: Irritating to eyes.

Acute Skin Irritation: No test data found for product. Acute Dermal Toxicity: No test data found for product. Acute Respiratory Irritation: No test data found for product. Acute Inhalation Toxicity: May cause nose and throat irritation. Acute Oral Toxicity: Sulfamic Acid, LD50 rat = 3160 mg/kg

Sodium 2-Ethylhexyl Sulfate, LD50 rat = 4 grams/kg

Chronic Toxicity: This product does not contain any substances that are considered by OSHA, NTP, IARC OR ACGIH to be a probable or suspected human carcinogen. No additional test data was found for this product.

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15. REGULATORY INFORMATION

Inventory Issues: All components of this product are listed on the U.S. TSCA, Canadian DSL, European EINECS/ELINS chemical listings

16. OTHER INFORMATION

Listed Australian Inventory of Chemical Substances (AICS.)

NATO Stock Number: 7930013780297 **National Fire Protection Association**

Hazard Rating, NFPA Health Flammability Reactivity Special 2

MSDS CHANGES

DESCRIPTION OF CHANGE 2/14/13 Transportation 3/18/2014 **SDS Format**

Disclaimer: The information herein is given in good faith but no warranty expressed or implied is made. This SDS has been prepared by L&R Manufacturing Company.