MATERIAL SAFETY DATA SHEET

1. Identification of Substance and Manufacturer:
EXTRA HEAVY STAIN REMOVER PCN: 237
Use: Ultrasonic Cleaning and Stain Removing Solution, diluted as per instructions
Manufacturer: L&R Manufacturing Company, 577 Elm Street, P.O. Box 607 Kearny, NJ 07032-0607 USA.
Publication Date: **05/04/2018** **REV: K**
Product information call 201-991-5330 www.lrultrasonics.com
For emergencies involving a spill, leak fire or accident contact CHEMTEL 800-255-3924 within the United States. Or 1-813-248-0585 for International calls.

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2. HAZARDS IDENTIFICATION

WARNING! CORROSIVE. IRRITANT. HARMFUL IF SWALLOWED. AQUATIC TOXICITY.

A: WARNING STATEMENT:

Oxidizer: Corrosive to eyes (May cause blindness), skin, respiratory tract, mucous membranes.
Do not use directly in the ultrasonic tank. Use in glass beakers. Change after each use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage
Lithium Hypochlorite Mixture	13840-33-0	100

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.
Rinse mouth with water and dilute by giving 1 or 2 glasses of water
MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

General Hazard: Oxidizer**.** Contact with easily oxidizable or combustible materials can cause fire or explosion upon ignition from any source.
Suitable Extinguishing Media: Use Water only
Unsuitable Extinguishing Media: No dry chemical, CO2, or Halon
Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting.
Unusual Fire and Explosion Hazards: Strong oxidizer. Contact wit combustible material may cause fire.
Hazardous Decomposition Materials: (under fire conditions) Chlorine gas

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Sweep up spilled material in a plastic container and then wash area to remove any residuals.
Environmental and Regulatory Reporting: Not required

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: Store in a cool dry place 35 -80°F. Store away from oxidizable materials, strong acids and flammable liquids. Keep container tightly closed.
HANDLING: AVOID CONTACT WITH SKIN, EYES OR CLOTHING. Avoid breathing dust. Wash thoroughly after handling.

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
Lithium Hypochlorite mixture	No Data Available

Engineering Controls: Provide adequate room ventilation.

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

Eye/Face Protection: Wear goggles or safety glasses to protect from contact with eyes.

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: Granular solid **Color:** White **Odor:** Chlorine like odor.
pH: 11 at 1% solution **Specific Gravity:** 0.9 -1.0 **Odor Threshold:** Not available
Water Solubility: 43% **Evaporation Rate:** Not Applicable **Melting Point Range:** Not Applicable
Freezing Point Range: Not Applicable **Boiling Point:** Not Applicable **Partition Coefficient; n-octanol / water:** Not Applicable
Vapor Pressure: Not Applicable **Vapor Density:** Not Applicable **Decomposition Temperature:** 135°C (275°F)
Flash Point: Not Applicable **Method:** Tag Closed Cup **Auto Ignition Temperature:** Not Applicable
Flammability limits (vol/vol %): Lower: No Data **Upper**: No Data **Explosive Properties**: Not Explosive
Percent volatile by volume: Not Applicable **V.O.C. (calculated):** None **Oxidizing Properties**: Oxidizer

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature

Conditions to be avoided: Contact with combustible materials (wood, paper, oil). Contamination with moisture.

Materials/Chemicals to be avoided: Acids, oxidizable materials, combustible materials.

Hazardous Decomposition Products: Thermal Toxic chlorine gases.

Possibility of Hazardous Reactions: Strong oxidizer contact with combustible material may cause fire.

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: Causes severe irritation to the eye (rabbit).

Acute Skin Irritation: Can be corrosive to the skin.

Acute Dermal Toxicity: Dermal LD_{50}. = 8100 mg/kg (rabbit)

Acute Respiratory Irritation: No test data found for product.

Acute Inhalation Toxicity: Inhalation LD_{50} =2 mg/L (rat).

Acute Oral Toxicity: For the product, the LD_{50} (rat) = 555 mg / 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: Hazardous to fish and Daphnia. This product is toxic to fish and maybe slightly toxic to birds.

Rainbow Trout: 96 Hour LC_{50} = 0.69 mg / L. Mallard Duck: Acute Oral LD_{50} = 1960 mg/kg.
Bluegill 96 hour LD_{50} = 0.97 mg/L Daphnia: 48 Hour LD_{50} (static) = 0.37 microgram/L

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to local, federal and state regulations.

14. TRANSPORTATION INFORMATION

This product is classified as an Oxidizer per 49 CFR 171.101. For approved domestic ground shippers shipments of container of 1 kilogram or less, this material is listed as ORM-D. For all other shippers, containers: Lithium Hypochlorite, Dry, 5.1 Oxidizing Agent, UN 1471, Packing Group II. 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
	3	0	1	OXY

SDS CHANGES

REV	DATE	DESCRIPTION OF CHANGE
K	**05/04/2018**	Emergency Contact Change

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.