



MATERIAL SAFETY DATA SHEET CLOCK CLEANING CONCENTRATE

PCN(s) 133, 134

Publication Date: 8/15/11

REV: G

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: Hazy Yellow / Green Liquid with Strong Ammonia 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 mist causes irritation to the nose and drowsiness.

Acute Ingestion: Not known, but would be expected to cause nausea and diarrhea.

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 | 10 - 25 |
| ISOPROPYL ALCOHOL | 67-63-0 | 20 - 25 |
| OLEIC ACID | 112-80-1 | 5 - 10 |
| PINE OIL | 8002-09-3 | 5 - 10 |
| AMMONIUM HYDROXIDE | 1336-21-6 | 30 - 40 |

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.

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

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA: Flammable Liquid

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

Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting.

Unusual Fire and Explosion Hazards: May be ignited by excess heat, sparks or flames. Closed containers may explode due to build up of pressure when exposed to extreme heat.

Hazardous Decomposition Materials: (under fire condition) Oxides of carbon and ammonia vapor.

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: 39 to 90° F. Protect from freezing.

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:

| <u>INGREDIENTS</u> | <u>LIMITS</u> | <u>INGREDIENTS</u> | <u>LIMITS</u> |
|--------------------|--------------------------|--------------------|--------------------------------|
| Isopropyl Alcohol | 400 PPM OSHA/ AACGIH TWA | Oleic Acid | None Established |
| Pine oil | 100 PPM ACGIH TWA | Ammonium hydroxide | 50 PPM (as ammonia) OSHA/PEL |
| Water | 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: Hazy Liquid

Color: Yellow / Green

Odor: Strong Ammonia Odor

pH: Approximately 11.5 (as concentrate)

Specific Gravity: 0.915

Odor Threshold: Not available

Water Solubility: Soluble

Melting Point Range: Not available

Evaporation Rate: Not Applicable

Freezing Point Range: Not established

Boiling Point: 210- 212 ° F

Partition Coefficient; n-octanol / water: Not available

Vapor Pressure: Not established

Vapor Density: Not established

Decomposition Temperature: Not available

Flash Point: 93 °F (33.9° C) **Method:** Tag Closed Cup

Auto Ignition Temperature: Not available

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

Percent volatile by volume: Approximately 85% as water and alcohol **V.O.C. (calculated):** 2.08 lbs./ gal or 249.3 gms / l.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to be avoided: Heat and open flame

Materials/Chemicals to be avoided: Strong acids, strong oxidizing agents, aluminum.

Decomposition Type: Thermal: Oxides of Carbon and Nitrogen

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: No test data found for product.

Acute Oral Toxicity: LD50 (rat) = 74 gm/kg .for oleic acid
3200 mg/kg for Pine Oil
350 mg/kg for ammonium hydroxide
5045 mg/kg for isopropyl alcohol

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

14. TRANSPORTATION INFORMATION

For domestic ground transport this is classified as ORM-D. For air or export, it is classified as Flammable liquid n.o.s. (Contains Isopropyl Alcohol), 3, Un1993, PG III. 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 | 3 | 0 | -- |

MSDS CHANGES

| <u>REV</u> | <u>DATE</u> | <u>DESCRIPTION OF CHANGE</u> |
|------------|-------------|--|
| F | 8/6/07 | Reviewed/ changed to ANSI Z400.1-2004 format |
| G | 8/15/11 | Reviewed/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: 8/15/11

Product Name: **CLOCK CLEANING CONCENTRATE**