

MATERIAL SAFETY DATA SHEET

#677 ULTRASONIC NON-AMMONIATED CLOCK CLEANING SOLUTION

PCN(s) 135 Publication Date: 2/24/09

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: Clear Pale Amber liquid with characteristic odor.

A: WARNING STATEMENT: FLAMMABLE LIQUID

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 drowsiness.

Acute Ingestion: Expected to cause nausea dizziness, drowsiness, irritation of the digestive tract.

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
Stoddard Solvent ($C_6H_6 < 0.1\%$)	8052-41-3	60-70
Solvent Naphtha Light Aliphatic	64742-89-8	15-20
Oleic Acid	112-80-1	5 - 10
Monoethanolamine	141-43-5	1 - 5
2 Propoxyethanol	2807-30-9	1 - 5
n-Propanol	71-23-8	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.

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

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

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

Unsuitable Extinguishing Media: Do not use a solid stream of water, since the stream will scatter and spread the fire.

Water spray may be used to keep fire exposed containers cool.

Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting. Unusual Fire and Explosion Hazards: Closed containers may explode due to build up of pressure

when exposed to extreme heat.

Hazardous Decomposition Materials: (under fire conditions) Oxides of nitrogen and carbon.

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Ventilate area of spill. Use non-reactive material to pick up spill. Dispose of in accordance with local, state and federal regulations.

Environmental and Regulatory Reporting: Not required

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: 39 to 100 ° F. Protect from freezing. Freezing may cause separation the product. If product is allowed to return to room temperature and shaken it may return to its original state 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

INGREDIENTS Stoddard Solvent

100 ppm OSHA/ TWA 300 ppm OSHA/ ACGIH TWA 2 Propoxyethanol Monoethanolamine

None Established 3 ppm OSHA/PEL 200 ppm OSHA/PEL.

Solvent Naphtha Oleic Acid

None established

N-Propanol

Engineering Controls: Provide adequate 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: Wear 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

pH: 11.2

Water Solubility: Forms an emulsion

Freezing Point Range: Not Available Vapor Pressure: Not established

Color: Pale Yellow to Amber Specific Gravity: 0.795 Melting Point Range: Not applicable

Boiling Point: >212°F Vapor Density: Not established

Flash Point: 75°F (23.9°C) Method: Tag Closed Cup

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

Percent volatile by volume: Approximately 85-90% V.O.C. (calculated): 5.79 lbs/gal or 693.6 g/l

Odor: Characteristic

Odor Threshold: Not available Evaporation Rate: Not available

Partition Coefficient; n-octanol / water: Not available

Decomposition Temperature: Not available Auto Ignition Temperature: Not available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to be avoided: Keep away from heat and open flames

Materials/Chemicals to be avoided: Strong Acids. Strong oxidizing agents Hazardous Decomposition Products: 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): Stoddard Solvent > 5 gm/kg Solvent Naphtha > 5 gm/kg

Oleic Acid > 5 gm/kg

2-Propoxyethanol = 3089 mg/kg Monoethanolamine = 1080 mg/kg

N-Propanol = 1870 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: No data found.

13. DISPOSAL CONSIDERATIONS

This material is a flammable liquid and must be disposed in accordance with all local, state and federal regulations. IT CAN NOT BE DISPOSED OF IN A SANITARY SEWER SYSTEM.

14. TRANSPORTATION INFORMATION

For domestic ground shipments of containers of 1 gallon or less, this material is listed as ORM-D. For all other containers FLAMMABLE LIQUID n.o.s. (Contains Naphtha, Petroleum), 3, UN 1993, Packing group 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, Europ ean EINECS/ELINS chemical listings

16. OTHER INFORMATION

National Fire Protection Association

Reactivity Special Health Flammability Hazard Rating, NFPA 3 2

MSDS CHANGES

DESCRIPTION OF CHANGE DATE REV Reviewed / ANSI Z400.1-2004 format 10/31/07 G Updated CAS# and Chemical Description 5/9/08 H Reviewed / deleted PCN # 2/24/09 I

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

Prepared By: L&R Manufacturing Company

Date: 2/24/09 Product Name: # 677 ULTRASONIC NON-AMMONIATED CLOCK CLEANING SOLUTION