SAFETY DATA SHEET

1. Identification of Substance and Manufacturer:

#677 ULTRASONIC NON-AMMONIATED CLOCK CLEANING SOLUTION PCN: 135, PL044, 7677
Use: Ultrasonic clock cleaning solution. To be used only for cleaning applications as specified.
Manufacturer: L&R Manufacturing Company, 577 Elm Street, P.O. Box 607 Kearny, NJ 07032-0607 USA.
Publication Date: 08/25/2021 REV: Q
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.

2. HAZARDS IDENTIFICATION

WARNING! FLAMMABLE LIQUID AND VAPOR.MAY BE HARMFUL IF SWALLOWED. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. PROLONG OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Hazard statements:

H226 Flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.

Precautionary statements:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage
Mineral Spirits Regular (C_6H_6 < 0.1%), (Stoddard solvent) (Mixture of aliphatic and alicyclic C7-C12 hydrocarbons with maximum content of 25% C7-C12 aromatic hydrocarbons)	8052-41-3	60-70
Solvent Naphtha Light Aliphatic (mixture consisting mainly of straight-chained and cyclic aliphatic having 5 to 9 carbons atoms per molecules.)	64742-89-8	15-25
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
Diethylenetriamine	111-40-0	< 1

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.
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 firefighting.

Unusual Fire and Explosion Hazards: Closed containers may explode due to buildup 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 º F.

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	I NGREDIENTS	LIMITS
Mineral Spirits	100 ppm OSHA/ TWA	Solvent Naphtha	300 ppm OSHA/ ACGIH TWA
2 Propoxyethanol	2 mg / m3 ACGIH TWA	Monoethanolamine	3 ppm OSHA/PEL
Oleic Acid	None established	N-Propanol	200 ppm OSHA/PEL

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 **Color:** Pale Yellow to Amber **Odor:** Characteristic

pH: 11.2 **Specific Gravity:** 0.795 **Odor Threshold:** Not available

Water Solubility: Forms an emulsion **Evaporation Rate:** 1 Ethyl Ether

Freezing Point Range: Not Available **Boiling Point**: >212 ° F **Partition Coefficient; n-octanol / water:** Not available

Vapor Pressure: 226.666 hPa @ 100 ° F/37.8 ° C Calculated **Decomposition Temperature:** Not available

Flash Point: 75 ° F/ (23.9° C) Method: Tag Closed **Auto Ignition Temperature:** Not available

Flammability limits (vol/vol %): Lower: 1% **Upper**: 8% **Relative Vapor Density:** (>) 1 Air=1

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

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): Mineral Spirits. > 5 gm/kg Solvent Naphtha > 8,000 mg / kg Oleic Acid > 5 gm/kg
2-Proxyethanol= 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 containers over one gallon and for export or air: Flammable liquid n.o.s. (Contains Naphtha, Petroleum), 3 UN 1993, Packing groups III. Limited Quantities for containers of one gallon or less shipped by domestic ground transportation. 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	--

SDS CHANGES

REV	DATE	DESCRIPTION OF CHANGE
P	03/05/2021	UPDATE
Q	08/25/2021	Hazardous identification updated

Disclaimer: The information herein is given in good faith but no warranty expressed or implied is made. This #677 SDS has been prepared by L&R Manufacturing Company. For more information, please email info@lrultrasonics.com