

Oleic Acid	None established	Ethoxylated Propoxylated Alcohols	None established
2-Propoxyethanol	None established	Sodium Dodecylbenzene Sulfonate	None established
Quaternary Ammonium Chloride	400 ppm OSHA/TWA	Dodecylthioethoxylate	None established
Pine Oil	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

pH: 10 to 11 (as concentrate)

Water Solubility: Soluble

Freezing Point Range: 6°F

Vapor Pressure: Not established

Flash Point: 117 °F (47.2 °C) **Method:** Tag Closed Cup

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

Percent volatile by volume: Approximately 60% by volume **V.O.C. (calculated):** 3.14 lbs./ gal or 378.8 grams / l.

Color: Amber

Specific Gravity: 0.98

Melting Point Range: Not available

Boiling Point: Not established

Vapor Density: Not established

Odor: Mild pine odor

Odor Threshold: Not available

Evaporation Rate: Not Applicable

Partition Coefficient; n-octanol / water: Not available

Decomposition Temperature: Not available

Auto Ignition Temperature: Not available

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 , magnesium, zinc..

Decomposition Type: Thermal: Oxides of carbon, nitrogen and sulfur

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) = 1085 mg / .kg for monoethanolamine

LD50 (rat) = 3089 mg / /kg 2-Propoxy ethanol

LD50 (rat) = 438 mg / kg for Sodium Dodecylbenzene Sulfonate

LD50 (rat) = 3.0 gm / kg for Dodecylthioethoxylate

LD50(rat)= 2.4 ml/kg for Ethoxylated Propoxylated Alcohols

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.

LD50 (rat) = 74 gm/ kg for Oleic Acid

LD50(rat) = Not available for Quaternary ammonium chloride

LD50 (rat) = 2.4 ml/kg for Ethoxylated Propoxylated Alcohols

LD50 (rat) = 3200 mg/ kg for terpene

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data found.

13. DISPOSAL CONSIDERATIONS

This product can be 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 containers of 1 gallon or smaller. For larger containers the classification is Compounds, Cleaning Liquid.(Contains 2-Propoxyethanol), class 3, NA 1993, 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

2

0

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MSDS CHANGES

REV

G

H

DATE

2/25/09

8/16/11

DESCRIPTION OF CHANGE

Reviewed / deleted PCN#

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: 8/16/11

Product Name: **HYDRO-SONIC CLEANING SOLUTION NON-AMMONIATED**