

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: Pink

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>
G	2/25/09	Reviewed / deleted PCN#
H	8/16/11	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: 8/16/11

Product Name: **GENERAL PURPOSE CLEANER CONCENTRATE AMMONIATED**