

## **MATERIAL SAFETY DATA SHEET**

NAPHTHOL ALPHA SOLUTION  
CAROLINA BIOLOGICAL

Revised: 05/15/08  
Replaces: 07/16/04  
Printed: 05/20/08

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### **1. PRODUCT DESCRIPTION**

Product Name: Naphthol Alpha Solution  
Product Code(s): 87-6671, 87-6673  
Size: 120 ml, 500ml  
Chemical Name: Does not apply, product is a mixture  
CAS Number: Does not apply  
Formula: See Section 2  
Synonyms: None  
Distributor: Carolina Biological Supply Company  
2700 York Road  
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)  
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

### **2. COMPOSITION/INFORMATION ON INGREDIENTS**

Principal Hazardous Components: Ethyl alcohol(CAS#64-17-5) 85.5%  
Methyl isobuty ketone(Denaturant)  
(CAS#108-10-1) 3.6%  
Hexane(Denaturant)CAS#110-54-3) 0.90%  
Alpha-Naphthol(CAS#90-15-3) 5%

TLV and PEL units: Ethyl alcohol ACGIH-TLV 1000ppm (TWA)  
OSHA-PEL 1000ppm (TWA)  
Methyl isobutyl ketone ACGIH-TLV 50ppm (TWA) 75ppm (STEL)  
OSHA-PEL 100ppm (TWA)  
Hexane ACGIH-TLV 50ppm (TWA)  
OSHA-PEL 500ppm (TWA)  
Alpha-Naphthol None established

### **3. HAZARD IDENTIFICATION**

Emergency Overview: May cause irritation to eyes and skin. Local action may produce peeling of the skin which may be followed by persistent pigmentation. Consult a physician upon exposure.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

### **4. FIRST AID MEASURES**

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.  
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

Ingestion - If swallowed, if conscious, give plenty of water; do not induce vomiting unless or until directed by medical personnel.

Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

### **5. FIREFIGHTING PROCEDURES**

Flash Point(Method Used):(cc)55.6F (Ethyl alcohol)

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NFPA Rating:           Health: 2  
                          Fire: 3  
                          Reactivity: 0

### Extinguisher Media:

Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: Ethyl alcohol:LEL-3.3%,UEL-19%

Autoignition Temperature: Ethyl alcohol- 793F

### Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Extremely flammable. Vapors are heavier than air and can travel distances to ignition source and flash back.

## **6. SPILL OR LEAK PROCEDURES**

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition.

Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

## **7. SPECIAL PRECAUTIONS**

Precautions to be Taken in Handling or Storing: This material should be kept in an area suitable for the storage of flammable liquids. Bond and ground containers when transferring liquid. Do not breathe vapor. Do not get in eyes, on skin or on clothing.

Other Precautions: DO NOT TAKE INTERNALLY! Wash thoroughly after handling.

Keep oxidizing material and strong acids away.

## **8. SPECIAL PROTECTION INFORMATION**

Respiratory Protection(Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred

Mechanical(General): Acceptable

Special: No

Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

## **9. PHYSICAL DATA**

Molecular Weight:           No information available  
Melting Point:               No information available.  
Boiling Point:                78.5F  
Vapor Pressure:               No information available.  
Vapor Density(Air=1):        1.59  
Specific Gravity(H2O=1):     Less than 1  
Percent Volatile by Volume:  95%  
Evaporation Rate(H2O=1):    1.70

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Solubility in Water: 95%(naphthol is insoluble)  
Appearance and Odor: Dark reddish, brown liquid, fruity odor.

### **10. REACTIVITY DATA**

Stability: Stable  
Conditions to Avoid: Heat, sparks, open flame.  
Incompatibility(Materials to Avoid): Oxidizers, concentrated nitric and sulfuric acids, aldehydes, halogens.  
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.  
Hazardous Polymerization: Will not occur

### **11. TOXICITY DATA**

Toxicity Data: Toxicological properties of this mixture have not been thoroughly evaluated.

Ethyl alcohol: orl-rat LD50: 7,060 mg/kg;  
ihl-rat LC50: 20,000 ppm/10H  
Methyl isobutyl ketone: orl-rat LD50: 2,080 mg/kg  
Hexane: orl-rat LD50: 28,710 mg/kg  
Alpha-Naphthol: orl-rat LD50: 1,870 mg/kg;  
skn-rbt LD50: 880 mg/kg.

Effects of Overexposure:

Acute: See section 3

Chronic:

Ethyl alcohol: Mutation data cited. Reproductive effects data cited.  
Tumorigenic data cited. Not listed as causing cancer by IARC, NTP, or OSHA.

Methyl isobutyl ketone: No chronic effects data found. Not listed as causing cancer by IARC, NTP, or OSHA.

Hexane: Mutation data cited. Reproductive effects data cited. Not listed as causing cancer by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: Kidney, liver, heart, and gastrointestinal conditions.

Target Organs: Kidneys, liver, heart, and GI tract.

Primary Route(s) of Entry: Inhalation, skin contact

### **12. ECOLOGICAL DATA**

EPA Waste Numbers: Ethanol, 95% D001

### **13. DISPOSAL INFORMATION**

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

### **14. TRANSPORT INFORMATION**

Description: Flammable liquids, n.o.s.(Ethanol, methyl isobutyl ketone), 3, UN1993, II

### **15. REGULATORY INFORMATION**

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute, fire

		SARA Sec. 313		
	SARA EHS	Chemicals	CERCLA	RCRA
Product or	Sec. 302	Name Chemical	Sec. 103	Sec.
Components	TPQ	List Category	RQ lbs.	261.33

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Ethyl alcohol	No	No	No	No	No
Methyl isobutyl ketone	No	Yes	No	5000	Yes(Ign.)
Hexane	No	No	No	No	No
Alpha-Naphtol	No	No	No	No	No

### **16. ADDITIONAL INFORMATION**

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

#### Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Abstracts Service Number

CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act

DOT.....U.S. Department of Transportation

IARC.....International Agency of Research on Cancer

mppcf.....million particles per cubic foot

N/A.....Not Available

NTP.....National Toxicology Program

OSHA.....Occupational Safety and Health Administration

PEL.....Permissible Exposure Limit

ppm.....parts per million

RCRA.....Resource Conservation and Recovery Act

SARA.....Superfund Amendments and Reauthorization Act

TLV.....Threshold Limit Value

TSCA.....Toxic Substances Control Act