

# Safety Data Sheet

## 1-Naphthol Solution

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** 1-Naphthol Solution  
**Recommended Use:** Science education applications  
**Synonyms:** Alpha-Naphthol Solution  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Highly flammable liquid and vapor. Fatal if swallowed. Toxic in contact with skin. Causes serious eye damage. May cause cancer. Causes damage to organs. Harmful to aquatic life.

**GHS Classification:**

Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1A, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Flammable Liquid Category 2, Acute Toxicity - Oral Category 2, Acute Toxicity - Dermal Category 3, Hazardous to the aquatic environment - Acute Category 3

**Other Safety Precautions:**

IF exposed: Call a POISON CENTER or doctor/physician.  
IF exposed or concerned: Get medical advice/attention.

### Section 3

### Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Ethyl alcohol	64-17-5	81.61
1-Naphthol	90-15-3	5
Water	7732-18-5	4.75
Isopropyl Alcohol	67-63-0	4.56
Methanol	67-56-1	4.09

### Section 4

### First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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## Section 5

## Firefighting Procedures

<b>Extinguishing Media:</b>	Use dry chemical, CO2 or appropriate foam.
<b>Fire Fighting Methods and Protection:</b>	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
<b>Fire and/or Explosion Hazards:</b>	Fire or excessive heat may produce hazardous decomposition products.
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide

## Section 6

## Spill or Leak Procedures

<b>Steps to Take in Case Material Is Released or Spilled:</b>	No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation. Isolate area. Keep unnecessary personnel away.
<b>Methods for Clean-up</b>	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## Section 7

## Handling and Storage

<b>Handling:</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid direct sunlight and heat.
<b>Storage:</b>	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.
<b>Storage Code:</b>	Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

## Section 8

## Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Ethyl alcohol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA	N/A
1-Naphthol	N/A	N/A	N/A	N/A
Isopropyl Alcohol	200 ppm TWA	400 ppm STEL	400 ppm TWA; 980 mg/m3 TWA	N/A
Methanol	200 ppm TWA	250 ppm STEL	200 ppm TWA; 260 mg/m3 TWA	N/A

### Control Parameters

<b>Engineering Measures:</b>	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	
<b>Respirator Type(s):</b>	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection. NIOSH approved air purifying respirator with organic vapor cartridge and HEPA filter.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work
<b>Gloves:</b>	Nitrile

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## Section 9

## Physical Data

**Formula:** See Section 3  
**Molecular Weight:** No data available  
**Appearance:** Amber Liquid  
**Odor:** Moderate Alcohol Odor  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** No data available -114 C  
**Boiling Point:** 79 C  
**Flash Point:** 17 C  
**Flammable Limits in Air:** Ethyl Alcohol: 3.3 - 19%

**Vapor Pressure:** No data available  
**Evaporation Rate (BuAc=1):** No data available  
**Vapor Density (Air=1):** No data available  
**Specific Gravity:** < 1  
**Solubility in Water:** Soluble  
**Log Pow (calculated):** No data available -0.32  
**Autoignition Temperature:** Estimated 423 C  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**Percent Volatile by Volume:** 95%

## Section 10

## Reactivity Data

**Reactivity:** Not generally reactive under normal conditions.  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Temperatures above flash point in combination with sparks, open flames, or other sources of ignition. Exposure to light. Exposure to air. Keep lid tightly closed when not in use.  
**Incompatible Materials:** Strong oxidizing agents, Caustics (bases), Water-reactive materials, Acids, Strong reducing agents, Magnesium  
**Hazardous Decomposition Products:** Carbon dioxide  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation and skin contact.  
**Symptoms (Acute):** Liver disorders, Impaired Kidney Function, Cardiovascular system, Gastrointestinal,  
**Delayed Effects:** No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
1-Naphthol	90-15-3	Oral LD50 GUINEA PIG 2 GM/KG Oral LD50 Mouse 275 mg/kg		
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Isopropyl Alcohol	67-63-0	Oral LD50 Rat 5045 mg/kg Oral LD50 Mouse 3600 mg/kg		INHALATION LC50 Rat 16000 PPM 8H
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 PPM 4H

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Ethyl alcohol	64-17-5	Listed	Listed	Listed
1-Naphthol	90-15-3	Not listed	Not listed	Not listed
Isopropyl Alcohol	67-63-0	Listed	Not listed	Not listed
Methanol	67-56-1	Not listed	Not listed	Not listed

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** Liver, Kidneys, Blood, Eyes  
**Chronic:** Eyes

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## Section 12

## Ecological Data

**Overview:** Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

**Mobility:** This material is expected to have moderate mobility in soil. It absorbs to most soil types.

**Persistence:** Dissolved into water, Biodegradation, Photodegradation

**Bioaccumulation:** Bioconcentration is not expected to occur.

**Degradability:** Biodegrades at a moderate rate.

**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
Ethyl alcohol	64-17-5	96 HR LC50 PIMEPHALES PROMELAS 13400 - 15100 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 12 - 16 ML/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 2 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 10800 MG/L 48 HR LC50 DAPHNIA MAGNA 9268 - 14221 MG/L
1-Naphthol	90-15-3	Aquatic LC50 (96h) Bluegill Sunfish 0.75 MG/L
Water	7732-18-5	No data available
Isopropyl Alcohol	67-63-0	96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 MG/L 96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 9640 MG/L [FLOW-THROUGH] 48 HR EC50 DAPHNIA MAGNA 13299 MG/L 72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L 96 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L
Methanol	67-56-1	96 HR LC50 LEPOMIS MACROCHIRUS 13500 - 17600 MG/L [FLOW-THROUGH] 96 HR LC50 ONCORHYNCHUS MYKISS 18 - 20 ML/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 19500 - 20700 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 28200 MG/L [FLOW-THROUGH]

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

**Waste Disposal Code(s):** If discarded, this product is considered a RCRA ignitable waste, D001.

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**  
UN1987  
Alcohols N.O.S.  
Class 3  
P.G. II

**Air - IATA Proper Shipping Name:**  
UN1987  
Alcohols N.O.S.  
Class 3  
P.G. II

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## Section 15

## Regulatory Information

**TSCA Status:**

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
1-Naphthol	90-15-3	No	No	No	No	No
Isopropyl Alcohol	67-63-0	Isopropyl alcohol	No	No	No	No
Methanol	67-56-1	No	No	No	No	No

**California Prop 65:**WARNING: Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Section 16

## Additional Information

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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.

**Glossary**

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health