

Safety Data Sheet

1-Naphthol Solution

CAROLINA®
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. Harmful in contact with skin. Causes serious eye damage. Causes damage to organs. Harmful to aquatic life.

GHS Classification:

Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Flammable Liquid Category 2, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Dermal Category 4

Other Safety Precautions: IF exposed: Call a POISON CENTER or doctor/physician.

Acute Toxicity Oral Contains 86.67625 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Dermal Contains 81.67625 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3

Composition / Information on Ingredients

Chemical Name

	<u>CAS #</u>	<u>%</u>
Ethanol	64-17-5	81.68
1-Naphthol	90-15-3	5
Water	7732-18-5	4.75
2-Propanol	67-63-0	4.51
Methanol	67-56-1	4.06

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. Wash contaminated clothing before reuse.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5

Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.

Safety Data Sheet

Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

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. 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

Handling: 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 no 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.

Storage: 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.

Storage Code: Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8

Protection Information

<u>Chemical Name</u>	<u>ACGIH (TWA)</u>	<u>(STEL)</u>	<u>OSHA PEL (TWA)</u>	<u>(STEL)</u>
Ethanol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m ³ TWA	N/A
1-Naphthol	N/A	N/A	N/A	N/A
2-Propanol	200 ppm TWA	400 ppm STEL	400 ppm TWA; 980 mg/m ³ TWA	N/A
Methanol	200 ppm TWA	250 ppm STEL	200 ppm TWA; 260 mg/m ³ TWA	N/A

Control Parameters

Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE):

Respiratory Protection:

Lab coat, apron, eye wash, safety shower.
No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.

Respirator Type(s):

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.

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Eye Protection:

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

Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals.

Gloves:

Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

Nitrile

Section 9

Physical Data

Formula: See Section 3

Molecular Weight: No data available

Vapor Pressure: No data available

Evaporation Rate (BuAc=1): No data available

Safety Data Sheet

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 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: Organic Peroxides, Strong acids, Oxidizing materials, Strong oxidizing agents, Caustics (bases), Water-reactive materials
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:	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Chemical Name 1-Naphthol	90-15-3			
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
2-Propanol	67-63-0	Oral LD50 Rat 5045 mg/kg Oral LD50 Mouse 3600 mg/kg		INHALATION LC50 Rat 16000 ppm
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 ppm

Carcinogenicity:	CAS Number	IARC	NTP	OSHA
Chemical Name Ethanol	64-17-5	Listed	Listed	Listed
1-Naphthol	90-15-3	Not listed	Not listed	Not listed
2-Propanol	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, Central Nervous System, Eyes
Chronic: Eyes

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.

Safety Data Sheet

Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Ethanol	64-17-5	96 HR LC50 PIMEPHALES PROMELAS > 100 MG/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 Aquatic LC50 (96h) Bluegill Sunfish 0.75 MG/L No data available
1-Naphthol	90-15-3	
Water	7732-18-5	
2-Propanol	67-63-0	96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 µG/L 96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 13299 MG/L 72 HR EC50 DESMOIDES SUBSPICATUS > 1000 MG/L 96 HR EC50 DESMOIDES SUBSPICATUS > 1000 MG/L 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC]
Methanol	67-56-1	

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

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
Ethanol	64-17-5	No	No	No	No	No
1-Naphthol	90-15-3	No	No	No	No	No
2-Propanol	67-63-0	Isopropyl alcohol	No	No	No	No
Methanol	67-56-1	Methanol	No	5000 lb final RQ; 2270 kg final RQ	No	No

California Prop 65:

WARNING: This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

Section 16

Additional Information

Revised: 09/03/2014

Replaces: 09/03/2014

Printed: 09-11-2014

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

Safety Data Sheet

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