

## 1-Naphthol

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 1-Naphthol

**Synonyms/Generic Names:** 1-Hydroxynaphthalene;  $\alpha$ -Naphthol, 1-Naphthol

**SDS Number:** 477.00

**Product Use:** For Educational Use Only

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information Contact:** Ward's Science  
5100 West Henrietta Rd.  
PO Box 92912-9012  
Rochester, NY 14692  
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Target organ effect, Harmful by ingestion, Toxic by skin absorption, Corrosive

**Target Organs:** Eyes, Liver, Kidney, Blood

**Signal Word:** Danger

**Pictograms:**



**GHS Classification:**

Acute toxicity, Oral	Category 4
Acute toxicity, Dermal	Category 3
Skin irritation	Category 2
Serious eye damage	Category 1
Specific target organ toxicity - single exposure	Category 3
Acute aquatic toxicity	Category 2

## GHS Label Elements, including precautionary statements:

### Hazard Statements:

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H401	Toxic to aquatic life.

### Precautionary Statements:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280	Wear protective gloves/ eye protection/ face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.

### Potential Health Effects

<b>Eyes</b>	Causes eye burns.
<b>Inhalation</b>	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	Toxic if absorbed through skin. Causes skin burns.
<b>Ingestion</b>	Harmful if swallowed.

### NFPA Ratings

<b>Health</b>	2
<b>Flammability</b>	1
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

### HMIS Ratings

<b>Health</b>	2
<b>Fire</b>	1
<b>Reactivity</b>	0
<b>Personal</b>	E

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
1-Naphthol	100	90-15-3	201-969-4	C <sub>10</sub> H <sub>8</sub> O	144.17 g/mol

## 4. FIRST-AID MEASURES

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin</b>	Flush with plenty of water for at least 15 minutes and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable (and unsuitable) extinguishing media</b>	Flammable in the presence high temperature. Keep away from heat/sparks/open flame/hot surface. No smoking. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire.
--	--

<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

---

## 6. ACCIDENTAL RELEASE MEASURES

---

<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Pick up and arrange disposal without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

---

## 7. HANDLING AND STORAGE

---

### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

---

**Occupational exposure controls:** Contains no substances with occupational exposure limit values.

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

Appearance (physical state, color, etc.)	Solid.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	96°C (204.8°F)

Initial boiling point and boiling range	288°C (550.4°F)
Flash point	161°C (321.8°F)
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	UPPER: 0.8% LOWER:5%
Vapor pressure	2.3 hPa (1.7 mmHg) at 100°C (212°F)
Vapor density	Not Available
Density	1.0954 (Water = 1)
Solubility (ies)	Insoluble in cold water.
Partition coefficient: n-octanol/water	log Pow: 2.85
Auto-ignition temperature	542 °C (1,008 °F)
Decomposition temperature	Not Available

---

## 10. STABILITY AND REACTIVITY

---

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Not Available
<b>Incompatible Materials</b>	Strong oxidizing agents, strong bases.
<b>Hazardous Decomposition Products</b>	Carbon oxides.

---

## 11. TOXICOLOGICAL INFORMATION

---

### Acute Toxicity

<b>Skin</b>	LD50 Dermal - rabbit - 880 mg/kg
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	LD50 Oral - rat - 1,870 mg/kg

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Irritation, redness, itchiness.
<b>Eyes</b>	Irritation, redness, watering eyes, itchiness.
<b>Respiratory</b>	Irritation, coughing, wheezing.
<b>Ingestion</b>	Irritation, nausea, vomiting, diarrhea.

<b>Chronic Toxicity</b>	Toxic to lungs, mucous membranes
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

---

## 12. ECOLOGICAL INFORMATION

---

### Ecotoxicity

<b>Aquatic Vertebrate</b>	LC50 - Pimephales promelas (fathead minnow) - 4.1 - 4.7 mg/l - 96 h
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Toxic to aquatic life.

---

## 13. DISPOSAL CONSIDERATIONS

---

<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

---

## 14. TRANSPORTATION INFORMATION

---

US DOT	UN2811, Toxic solids, organic, n.o.s. (1-Naphthol), 6.1, pg III
TDG	UN2811, TOXIC SOLIDS, ORGANIC, N.O.S. (1-NAPHTHOL), 6.1, pg III
IMDG	UN2811, TOXIC SOLIDS, ORGANIC, N.O.S. (1-NAPHTHOL), 6.1, pg III
Marine Pollutant	No
IATA/ICAO	UN2811, Toxic solids, organic, n.o.s. (1-Naphthol), 6.1, pg III

---

## 15. REGULATORY INFORMATION

---

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	1-Naphthol
SARA 312	1-Naphthol
SARA 313	Not Listed
WHMIS Canada	CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

---

## 16. OTHER INFORMATION

---

Revision	Date
Revision 1	02/04/2013

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.