

MSDS Number: **N0840** \* \* \* \* *Effective Date: 09/09/09* \* \* \* \* *Supersedes: 05/04/07*

<b>MSDS</b>	<b>Material Safety Data Sheet</b>	24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-800-424-9300
		National Response in Canada CANUTEC: 613-996-6666 Outside U.S. And Canada Chemtrec: 703-527-3887
From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865		<b>J.T.Baker</b> ®
All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.		

## 1-NAPHTHOL

### 1. Product Identification

**Synonyms:** 1-Hydroxynaphthalene; Fourrine 99; alpha-naphthol; 1-naphthalenol  
**CAS No.:** 90-15-3  
**Molecular Weight:** 144.17  
**Chemical Formula:** C<sub>10</sub>H<sub>7</sub>OH  
**Product Codes:** R528

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
alpha-Naphthol	90-15-3	90 - 100%	Yes

### 3. Hazards Identification

#### Emergency Overview

**DANGER! MAY BE FATAL IF INHALED. HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. AFFECTS THE LIVER AND KIDNEYS.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate  
Flammability Rating: 1 - Slight  
Reactivity Rating: 1 - Slight  
Contact Rating: 3 - Severe  
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES  
Storage Color Code: Green (General Storage)

#### Potential Health Effects

##### Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. Inhalation may result in symptoms and problems similar to ingestion. Experimental animal studies with this compound suggest inhalation exposure may be fatal.

##### Ingestion:

Large doses may cause crampy abdominal pain, nausea, vomiting, sweating, intense thirst, cyanosis, hyperactivity, stupor, liver damage, blood pressure fall, nephritis, diarrhea, circulatory collapse, anemia, convulsions, and death. Estimated lethal dose 5 grams.

##### Skin Contact:

May cause severe irritation, redness, and pain. May be absorbed through the skin with symptoms paralleling ingestion and causing kidney damage. Local action may cause peeling of the skin which may be followed by persistent pigmentation.

##### Eye Contact:

Causes irritation, redness, pain, and injury to the cornea and lens of the eyes.

##### Chronic Exposure:

Prolonged or repeated skin exposure may cause dermatitis and symptoms similar to acute exposure. Repeated ingestion may also cause symptoms similar to acute exposure.

##### Aggravation of Pre-existing Conditions:

No information found.

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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide.

**Special Information:**

Use protective clothing and breathing equipment appropriate for the surrounding fire.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. Do not flush to the sewer.

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## 7. Handling and Storage

Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from oxidizing materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

**Appearance:**

White, gray or tan crystalline powder.

**Odor:**

Phenolic odor.

**Solubility:**

Very slightly soluble in water.

**Density:**

1.10

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

278 - 280C (532 - 536F)

**Melting Point:**

95 - 96C (203 - 205F)

**Vapor Density (Air=1):**

4.5

**Vapor Pressure (mm Hg):**

1 @ 94C (201F)

**Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Discolors on exposure to light.

**Hazardous Decomposition Products:**

When heated to decomposition, it emits acrid smoke and fumes.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizers, sulfuric acid, nitric acid, halogens, aluminum, copper, copper alloys, copper salts.

**Conditions to Avoid:**

Heat, flame, sources of ignition, light and incompatibles.

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## 11. Toxicological Information

Oral rat LD50: 1870 mg/kg. Inhalation rat LC50: > 420 mg/m3/1H. Irritation rabbit (std Draize): skin = 500 mg/24H, severe; eye = 1 mg, severe. Investigated as a mutagen, reproductive effector.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
alpha-Naphthol (90-15-3)	No	No	None

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## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

The LC50/96-hour values for fish are between 1 and 10 mg/l.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

Not regulated.

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## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
alpha-Naphthol (90-15-3)	Yes	Yes	Yes	Yes
-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	DSL	Canada NDSL	Phil.
alpha-Naphthol (90-15-3)	Yes	Yes	No	Yes
-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302- RQ	TPQ	-SARA 313- List	Chemical Catg.
alpha-Naphthol (90-15-3)	No	No	No	No
-----\Federal, State & International Regulations - Part 2\-----				
Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)	
alpha-Naphthol (90-15-3)	No	No	No	

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
 SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No  
 Reactivity: No (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **3** Flammability: **1** Reactivity: **1**

**Label Hazard Warning:**

DANGER! MAY BE FATAL IF INHALED. HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. AFFECTS THE LIVER AND KIDNEYS.

**Label Precautions:**

Do not get in eyes, on skin, or on clothing.

Do not breathe dust or vapor.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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**Prepared by:** Environmental Health & Safety

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