

# MATERIAL SAFETY DATA SHEET



## Naphthalene

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	Naphthalene
<b>Synonyms:</b>	
<b>Company Identification: (INDIA)</b>	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
<b>For information in the INDIA, call:</b>	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
91-20-3	Naphthalene	>97%	202-049-5

<b>Hazard Symbols:</b>	XN N
	
<b>Risk Phrases:</b>	22 40 50/53

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Harmful if swallowed. Limited evidence of a carcinogenic effect. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*

#### Potential Health Effects

<b>Eye:</b>	Vapors may cause eye irritation. Causes redness and pain.
<b>Skin:</b>	May cause skin irritation. May be absorbed through the skin in harmful amounts. Causes redness and pain.
<b>Ingestion:</b>	Harmful if swallowed. May cause liver and kidney damage. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. Exposure may cause anemia and other blood abnormalities.
<b>Inhalation:</b>	May cause respiratory tract irritation. May cause effects similar to those described for ingestion.
<b>Chronic:</b>	May cause anemia and other blood cell abnormalities. Limited evidence of a carcinogenic effect.

## Section 4 - First Aid Measures

<b>Eyes:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
<b>Ingestion:</b>	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
<b>Notes to Physician:</b>	

## Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Combustible solid.
<b>Extinguishing Media:</b>	Use carbon dioxide or dry chemical.

## Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Vacuum or sweep up material and place into a suitable disposal container. Remove all sources of ignition.

## Section 7 - Handling and Storage

<b>Handling:</b>	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Take precautionary measures against static discharges. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood.
<b>Storage:</b>	Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

<b>Engineering Controls:</b>	Use adequate ventilation to keep airborne concentrations low. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
<b>Exposure Limits</b>	
	CAS# 91-20-3:
	United States OSHA: 10 ppm TWA; 50 mg/m3 TWA
	Belgium - TWA: 10 ppm VLE; 53 mg/m3 VLE Belgium - STEL: 15 ppm VLE; 80 mg/m3 VLE
	France - VME: 10 ppm VME; 50 mg/m3 VME
	Germany: 10 ppm TWA; 50 mg/m3 TWA Germany: skin notation
	Malaysia: 10 ppm TWA; 52 mg/m3 TWA
	Netherlands: 10 ppm MAC; 50 mg/m3 MAC
	Spain: 10 ppm VLA-ED; 53 mg/m3 VLA-ED Spain: 15 ppm VLA-EC; 80 mg/m3 VLA-EC

<b>Personal Protective Equipment</b>	
<b>Eyes:</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Solid
<b>Color:</b>	white - almost white
<b>Odor:</b>	mothball-like - characteristic odor
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	0.08mbar @20 deg C
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	218 deg C @760mmHg ( 424.40°F)
<b>Freezing/Melting Point:</b>	79 - 83 deg C
<b>Autoignition Temperature:</b>	526 deg C ( 978.80 deg F)
<b>Flash Point:</b>	78 deg C ( 172.40 deg F)
<b>Explosion Limits: Lower:</b>	0.9 Vol %
<b>Explosion Limits: Upper:</b>	5.9 Vol %
<b>Decomposition Temperature:</b>	
<b>Solubility in water:</b>	30 mg/l (25°C)
<b>Specific Gravity/Density:</b>	0.990 g/cc
<b>Molecular Formula:</b>	C10H8
<b>Molecular Weight:</b>	128.17

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions. Hygroscopic: absorbs moisture or water from the air.
<b>Conditions to Avoid:</b>	Incompatible materials, ignition sources.
<b>Incompatibilities with Other Materials</b>	Oxidizing agents, chromic anhydride.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide.
<b>Hazardous Polymerization</b>	Will not occur.

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 91-20-3: QJ0525000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 91-20-3:</b> Draize test, rabbit, eye: 100 mg Mild; Inhalation, rat: LC50 = >340 mg/m <sup>3</sup> /1H; Oral, mouse: LD50 = 316 mg/kg; Oral, rat: LD50 = 490 mg/kg; Skin, rabbit: LD50 = >20 gm/kg; Skin, rat: LD50 = >2500 mg/kg; Other:
<b>Carcinogenicity:</b>	Naphthalene - California: carcinogen, initial date 4/19/02 NTP: Suspect carcinogen IARC: Group 2B carcinogen
<b>Other:</b>	See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

<b>Ecotoxicity:</b>	Daphnia: Daphnia: EC50: 2-17 mg/l; 48H; . Fish: Fathead Minnow: LC50: 7.76 mg/l; 24H; . Fish: Rainbow trout: LC50: 0.11 mg/L; 96H; .
<b>Other:</b>	Do not empty into drains. log Pow: 3.37

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	NAPHTHALENE, CRUDE	NAPHTHALENE, CRUDE	NAPHTHALENE, CRUDE
<b>Hazard Class:</b>	4.1	4.1	4.1
<b>UN Number:</b>	1334	1334	1334
<b>Packing Group:</b>	III	III	III

USA RQ: CAS# 91-20-3: 100 lb final RQ; 45.4 kg final RQ

Severe Marine Pollutant

## Section 15 - Regulatory Information

### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

### Risk Phrases:

- R 22 Harmful if swallowed.
- R 40 Limited evidence of a carcinogenic effect.
- R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

- S 36/37 Wear suitable protective clothing and gloves.
- S 46 If swallowed, seek medical advice immediately and show this container or label.
- S 60 this material and its container must be disposed of as hazardous waste.

**WGK (Water Danger/Protection)**

- CAS# 91-20-3: 2

**Canada**

- CAS# 91-20-3 is listed on Canada's DSL List

**US Federal**

- TSCA
- CAS# 91-20-3 is listed on the TSCA Inventory.

**Section 16 - Other Information**

<b>MSDS Creation Date:</b>	July 24, 2015
<b>Revision #0 Date</b>	

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