

SIGMA-ALDRICH**Material Safety Data Sheet**Version 3.0
Revision Date 08/24/2008
Print Date 08/30/2010**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 1-Nitronaphthalene

Product Number : 73500
Brand : Fluka

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +18003255832
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₁₀H₇NO₂
Molecular Weight : 173.17 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
1-Nitronaphthalene			
86-57-7	201-684-5	-	-

3. HAZARDS IDENTIFICATION**Emergency Overview****OSHA Hazards**

Flammable Solid, Toxic by ingestion

HMIS Classification**Health Hazard:** 2**Flammability:** 1**Physical hazards:** 0**NFPA Rating****Health Hazard:** 2**Fire:** 1**Reactivity Hazard:** 0**Potential Health Effects****Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.**Skin** May be harmful if absorbed through skin. May cause skin irritation.**Eyes** May cause eye irritation.**Ingestion** Toxic if swallowed.**4. FIRST AID MEASURES**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES**Flammable properties**

Flash point 164.00 °C (327.20 °F) - closed cup

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	crystalline
Colour	light yellow

Safety data

pH	no data available
Melting point	53 - 57 °C (127 - 135 °F) 56 - 58 °C (133 - 136 °F)
Boiling point	304 °C (579 °F)
Flash point	164.00 °C (327.20 °F) - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	0.00064 hPa (0.00048 mmHg) at 25 °C (77 °F)
Density	1.223 g/mL at 25 °C (77 °F)
Water solubility	no data available
Partition coefficient: n-octanol/water	log Pow: 3.19

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong reducing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - rat - 120 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: Group 3 - Not classifiable as to carcinogenicity to humans (1-Nitronaphthalene)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro - Human - HeLa cell
DNA inhibition

Genotoxicity in vitro - Hamster - Lungs
Mutation in mammalian somatic cells.

Genotoxicity in vitro - Hamster - Lungs
Sister chromatid exchange

Genotoxicity in vitro - S. typhimurium
Mutation in microorganisms

Signs and Symptoms of Exposure

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	Toxic if swallowed.

Additional Information

RTECS: QJ9720000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2 - 4 mg/l - 96 h

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 2538 Class: 4.1 Packing group: III

Proper shipping name: Nitronaphthalene

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN-Number: 2538 Class: 4.1 Packing group: III EMS-No: F-A, S-G

Proper shipping name: NITRONAPHTHALENE

Marine pollutant: No

IATA

UN-Number: 2538 Class: 4.1 Packing group: III

Proper shipping name: Nitronaphthalene

15. REGULATORY INFORMATION

OSHA Hazards

Flammable Solid, Toxic by ingestion

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

1-Nitronaphthalene

CAS-No.
86-57-7

Revision Date

California Prop. 65 Components

WARNING! This product contains a chemical known in the State of California to cause cancer.

1-Nitronaphthalene

CAS-No.
86-57-7Revision Date
1990-01-01**16. OTHER INFORMATION****Further information**

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