

SAFETY DATA SHEET

Preparation Date: 06/23/2015

Revision Date: 06/23/2015

Revision Number: G1

Product identifier

Product code: N2003
Product Name: 2-NAPHTHYLAMINE, POWDER

Other means of identification

Synonyms:

- 2-Aminonaftalen
- 2-Aminonaftalen [Czech]
- 2-Aminonaphthalene
- 2-Naftylamin
- 2-Naftylamin [Czech]
- 2-Naftylamine
- 2-Naftylamine [Dutch]
- 2-Naphthalamine
- 2-Naphthalenamine
- 2-Naphthylamin
- 2-Naphthylamin [German]
- 2-Naphthylamine
- 2-Naphthylamine mustard
- 6-Naphthylamine
- Fast Scarlet Base B
- beta-Naftalamin
- beta-Naftalamin [Czech]
- beta-Naftilamina
- beta-Naftilamina [Italian]
- beta-Naftylamin
- beta-Naftylamin [Czech]
- beta-Naftyloamina
- beta-Naftyloamina [Polish]
- beta-Naphthylamin
- beta-Naphthylamin [German]
- beta-Naphthylamine

CAS #: 91-59-8
RTECS # QM2100000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Chemical intermediate. Antioxidant in rubber.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300

Product code: N2003

Product name: 2-NAPHTHYLAMINE,
POWDER

Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1A

Label elements

Danger

Hazard statements

Harmful if swallowed

May cause cancer



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
2-NAPHTHYLAMINE, POWDER 91-59-8	91-59-8	100	*

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If eye irritation persists, consult a specialist.

Inhalation:

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

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

May cause skin irritation. May cause eye irritation. It may affect the urinary system. May cause methemoglobinemia and cyanosis.

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Use dry chemical, CO₂, water spray or "alcohol" foam.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon oxides, Nitrogen oxides

Specific hazards:

May be combustible at high temperatures
Fire may produce irritating and/or toxic gases

Special Protective Actions for Firefighters

Specific Methods:

For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not let this chemical enter the environment.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Remove all sources of ignition.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Protect from light. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Protect from light. Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Store away from incompatible materials.

Incompatible Materials:

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
2-NAPHTHYLAMINE, POWDER 91-59-8	None	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
2-NAPHTHYLAMINE, POWDER 91-59-8	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
2-NAPHTHYLAMINE, POWDER 91-59-8	confirmed carcinogen	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles or Safety glasses with side-shields
Skin and body protection:	Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection:	Wear respirator with dust filter.
Hygiene measures:	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.	Appearance: Powder.	Color: White. Reddish.
Odor: Faint. Aromatic.	Taste No information available	Molecular/Formula weight: 143.19
Formula: C10H9N	Flammability: No information available	Flash point (°C): 157
Flashpoint (°C/°F): 157°C/314°F	Flash Point Tested according to: Not available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Autoignition Temperature (°C/°F): No information available	pH: No information available
Melting point/range(°C/°F): 111-113°C/ 232-235°F	Boiling point/range(°C/°F): 306°C/ 583°F	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Specific gravity: 1.061 @ 98 deg.C	Vapor pressure @ 20°C (kPa): No information available
Density (g/cm3): No information available	Evaporation rate: No information available	Vapor density: 4.95
VOC content (g/L): No information available	Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): 2.28
Viscosity: No information available	Miscibility: No information available	Solubility: Soluble in Alcohol Solubility in Water: 6.40 mg/l @ 18 °C Soluble in hot water Soluble in many organic solvents Soluble in Ether

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Sensitive to light. Exposure to light accelerates decomposition. Darkens with exposure to air and light. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Exposure to light. Incompatible materials.

Incompatible Materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NOx).

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

2-NAPHTHYLAMINE, POWDER - 91-59-8

LD50/oral/rat = 727 mg/kg Oral LD50 Rat

LD50/oral/mouse = No information available

LD50/dermal/rat = No information available

LD50/dermal/rabbit = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 727mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat**VALUE-Vapor** = No information available**VALUE-Gas** = No information available**VALUE-Dust/Mist** = No information available**LC50/Inhalation/mouse****VALUE-Vapor** = No information available**VALUE - Gas** = No information available**VALUE - Dust/Mist** = No information available**Symptoms****Skin Contact:** May cause skin irritation. Mild skin irritation. May cause contact dermatitis.**Eye Contact:** May cause eye irritation.

Inhalation May cause irritation of respiratory tract.
Ingestion Harmful if swallowed. May cause methemoglobinemia, (the formation of methemoglobin in the blood which causes deficient oxygenation of the blood due to decreased available hemoglobin). Signs and symptoms of methemoglobinemia include shortness of breath, cyanosis (a bluish discoloration of the skin, lips, mucous membranes), mental status changes such as headache, mental impairment, fatigue, muscular weakness, exercise intolerance, lightheadness, dizziness, incoordination, seizures, and loss of consciousness. Arterial blood with elevated methemoglobin levels has a characteristic chocolate-brown color as compared to normal bright red oxygen containing arterial blood. Severe methemoglobinemia is characterized by bradycardia or tachycardia (slow or fast heart beat), dysrhythmias, seizures, coma and death. May affect the urinary system. May cause painful or difficult urination. Hematuria (blood in the urine).

Aspiration hazard No information available**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** Chronic exposure, particularly by ingestion, can affect the urinary system (kidney, bladder cancer).**Sensitization:** No information available

Mutagenic Effects: Mutations in microorganisms
Experiments with bacteria and/or yeast have shown mutagenic effects
Mutagenic effects in mammalian somatic cells
Experiments with animal lymphocytes have shown mutagenic effects

Carcinogenic effects: Carcinogenic.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
2-NAPHTHYLAMINE, POWDER	Group 1 - Monograph 100F [2012] Monograph 99 [2010] Supplement 7 [1987] Monograph 4 [1974]	A1 Confirmed Human Carcinogen	Known Human Carcinogen	Present see 29 CFR 1910.1003	Present includes pure substance or mixtures containing >=0.1% (w/w) concentration	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)***Product code:** N2003**Product name:** 2-NAPHTHYLAMINE,
POWDER**7 / 12**

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: Blood. Methemoglobin formation. Bladder. Kidneys.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment..

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
2-NAPHTHYLAMINE, POWDER	None	None	None	U168

14. TRANSPORT INFORMATION

DOT

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
ERG No: 153

14. TRANSPORT INFORMATION

Marine Pollutant No data available
DOT RQ (lbs): No information available
Symbol(s): R2

TDG (Canada)

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

ADR

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1
Packing Group: II
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA

UN-No: UN1650
Proper Shipping Name: .beta.-Naphthylamine, solid
Hazard Class: 6.1

14. TRANSPORT INFORMATION

Subsidiary Risk: No information available
Packing Group: II
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
2-NAPHTHYLAMINE, POWDER	Not Listed	Present KE-25711	Present	Not present	Present	Not present	Present 202-080-4

U.S. Regulations

2-NAPHTHYLAMINE, POWDER

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1324
New Jersey (EHS) List: 1324 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
10 lb RQ
1 lb RQ
Connecticut - Carcinogenic Substances: Present
Louisiana Reportable Quantity List for Pollutants: 10lbfinal RQ
4.54kgfinal RQ
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
2-NAPHTHYLAMINE, POWDER	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
2-NAPHTHYLAMINE, POWDER	10 lb final RQ 4.54 kg final RQ	None	None	None	0.1 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
2-NAPHTHYLAMINE, POWDER	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

D1A Very toxic materials

D2A Very toxic materials

2-NAPHTHYLAMINE, POWDER

D1A D2A

Canada Controlled Products Regulation:

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

Components	WHMIS Ingredient Disclosure List -
2-NAPHTHYLAMINE, POWDER	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
2-NAPHTHYLAMINE, POWDER	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
2-NAPHTHYLAMINE, POWDER	Not listed	Not listed

EU Classification

R-phrase(s)

R22 - Harmful if swallowed.

R45 - May cause cancer.

R51 - Toxic to aquatic organisms.

R52 - Harmful to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S53 - Avoid exposure - obtain special instructions before use.

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

Components	Classification	Concentration Limits:	Safety Phrases
2-NAPHTHYLAMINE, POWDER	Xn; R22 Carc.Cat.1; R45 N; R51-53	No information	S53 S45 S61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

N - Dangerous for the environment.



16. OTHER INFORMATION

Preparation Date: 06/23/2015
Revision Date: 06/23/2015
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet