

SAFETY DATA SHEET

Version 8.5 Revision Date 01/26/2024 Print Date 02/11/2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

| Product name | : | 2-Vinylnaphthalene |
|------------------------------------|---|------------------------------|
| Product Number Brand CAS-No. | : | V2909 Aldrich 827-54-3 |

1.2 Relevant identified uses of the substance or mixture and uses advised against

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Identified uses : Laboratory chemicals, Synthesis of substances
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1.3 Details of the supplier of the safety data sheet

| | Company | | Sigma-Aldrich Inc. 3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES |
|-----|---------------------|--|---|
| | Telephone Fax | | +1 314 771-5765 +1 800 325-5052 |
| 1.4 | Emergency telephone | | |

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Specific target organ toxicity - single exposure (Category 1), Eyes, H370 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

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| Hazard Statements H370 | Causes damage to organs (Eyes). |
|---------------------------|--|
| Precautionary Statements | |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P307 + P311 | IF exposed: Call a POISON CENTER or doctor/ physician. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal |
| | plant. |
| | |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

| Formula | : | $C_{12}H_{10}$ |
|------------------|---|----------------|
| Molecular weight | : | 154.21 g/mol |
| CAS-No. | : | 827-54-3 |

| Component Classification | | Concentration |
|--------------------------|---|------------------|
| Methanol | | |
| | Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370 Concentration limits: >= 10 %: STOT SE 1, | >= 5 - < 10 % |
| | H370; 3 - < 10 %: STOT SE 2, H371; | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Consult a physician. Show this material 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. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution. Aldrich - V2909

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If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

- **4.2 Most important symptoms and effects, both acute and delayed** The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
- **4.3 Indication of any immediate medical attention and special treatment needed** No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

- **5.2 Special hazards arising from the substance or mixture** Carbon oxides
- **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information No data available

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
- **6.2** Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- **6.3 Methods and materials for containment and cleaning up** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **6.4 Reference to other sections** For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for

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combustible dust formation should be taken into consideration before additional processing occurs.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. **Storage stability**Recommended storage temperature 2 - 8 °C

Storage class

Storage class (TRGS 510): 11: Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

| Ingreatents w | пп могкріасе | e control pa | rameters | | | | |
|---------------|--------------|--------------|---------------------------------|--|--|--|--|
| Component | CAS-No. | Value | Control parameters | Basis | | | |
| Methanol | 67-56-1 | TWA | 200 ppm | USA. ACGIH Threshold Limit Values (TLV) | | | |
| | Remarks | Danger of | cutaneous abso | prption | | | |
| | | STEL | 250 ppm | USA. ACGIH Threshold Limit Values (TLV) | | | |
| | | Danger of | Danger of cutaneous absorption | | | | |
| | | ST | 250 ppm 325 mg/m3 | USA. NIOSH Recommended Exposure Limits | | | |
| | | Potential f | Potential for dermal absorption | | | | |
| | | TWA | 200 ppm 260 mg/m3 | USA. NIOSH Recommended Exposure Limits | | | |
| | | Potential f | Potential for dermal absorption | | | | |
| | | TWA | 200 ppm 260 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants | | | |
| | | PEL | 200 ppm 260 mg/m3 | California permissible exposure limits for chemical contaminants (Title 8, Article 107) | | | |
| | | Skin | | | | | |

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| C | 1,000 ppm | California permissible exposure limits for chemical contaminants (Title 8, Article 107) | | |
|------|----------------------|--|--|--|
| Skin | , in | | | |
| STEL | 250 ppm 325 mg/m3 | California permissible exposure limits for chemical contaminants (Title 8, Article 107) | | |
| Skin | Skin | | | |

Biological occupational exposure limits

| biological occupational exposure mints | | | | | | | |
|--|---------|--|---------|---------------------|--|--|--|
| Component | CAS-No. | Parameters | Value | Biological specimen | Basis | | |
| Methanol | 67-56-1 | Methanol | 15 mg/l | Urine | ACGIH - Biological Exposure Indices (BEI) | | |
| | Remarks | End of shift (As soon as possible after exposure ceases) | | | | | |

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 30 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist

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and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface 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).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: solid |
|----|--|---|
| b) | Odor | No data available |
| c) | Odor Threshold | No data available |
| d) | pН | No data available |
| e) | Melting point/freezing point | Melting point/range: 64 - 68 °C (147 - 154 °F) - lit. |
| f) | Initial boiling point and boiling range | No data available |
| g) | Flash point | ()No data available |
| h) | Evaporation rate | No data available |
| i) | Flammability (solid, gas) | No data available |
| j) | Upper/lower flammability or explosive limits | No data available |
| k) | Vapor pressure | No data available |
| I) | Vapor density | No data available |
| m) | Density | No data available |
| | Relative density | No data available |
| n) | Water solubility | No data available |
| o) | Partition coefficient: n-octanol/water | No data available |

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- p) Autoignition No data available temperature
- q) Decomposition No data available temperature
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available
- 9.2 Other safety information No data available

SECTION 10: Stability and reactivity

10.1 Reactivity No data available

10.2 Chemical stability Stable under recommended storage conditions.

- **10.3 Possibility of hazardous reactions** No data available
- **10.4 Conditions to avoid** No data available
- **10.5 Incompatible materials** Strong oxidizing agents
- **10.6 Hazardous decomposition products** In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - 2,002 mg/kg (Calculation method) Oral: No data available Acute toxicity estimate Inhalation - 4 h - 62 mg/l - vapor(Calculation method)

Inhalation: No data available Acute toxicity estimate Dermal - > 5,000 mg/kg (Calculation method) Dermal: No data available No data available

Skin corrosion/irritation

Remarks: No data available

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Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity No data available

Carcinogenicity

- IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP: No ingredient 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 on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available

11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Central nervous system - Breathing difficulties - Based on Human Evidence

SECTION 12: Ecological information

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability No data available
- 12.3 Bioaccumulative potential No data available
- **12.4 Mobility in soil** No data available

12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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12.6 Endocrine disrupting properties No data available

12.7 Other adverse effects No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US) Not dangerous goods

IMDG Not dangerous goods

ΙΑΤΑ

Not dangerous goods

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

SARA 302 Components

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

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Methanol Aldrich - V2909 CAS-No. Revision Date 67-56-1 2007-07-01

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SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

| Massachusetts Right To Know Components | CAS-No. | Revision Date |
|---|---------------------|-----------------------------|
| Methanol | 67-56-1 | 2007-07-01 |
| Methanol | CAS-No. 67-56-1 | Revision Date 2007-07-01 |
| Pennsylvania Right To Know Components 2-Vinylnaphthalene | CAS-No. 827-54-3 | Revision Date |
| Methanol | 67-56-1 | 2007-07-01 |
| Methanol | CAS-No. 67-56-1 | Revision Date 2007-07-01 |
| New Jersey Right To Know Components 2-Vinylnaphthalene | CAS-No. 827-54-3 | Revision Date |
| Methanol | 67-56-1 | 2007-07-01 |
| California Prop. 65 Components , which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.Methanol | CAS-No. 67-56-1 | Revision Date 2012-03-16 |

SECTION 16: Other information

Further information

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The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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