

Polynaphthalene

SECTION 1. IDENTIFICATION

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| Product Identifier | Polynaphthalene |
| Other Means of Identification | Poly-naphthalene sulfonate sodium salt; Sodium salt of poly-naphthalene sulfonic acid; Sodium salt of naphthalene sulfonate polymerized with formaldehyde; Sodium salt of condensed naphthalene sulfonic acid; Sodium poly(naphthalene sulfonate); Poly-naphtalène sulfonate, sel de sodium. |
| Recommended Use | Industrial Use Only. |
| Restrictions on Use | Not for use in food applications. |
| Manufacturer/Supplier | Avanti International, 822 Bay Star Blvd, Webster, TX, 77598, USA, 281.486.5600, |
| Emergency Phone No. | ChemTrec 800.424.9300 |
| Date of Preparation | December 1, 2020 |

SECTION 2. HAZARD IDENTIFICATION

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| Classification: | Combustible dust (Category 1) |
| Label Elements | |
| Hazard pictogram: | None |
| Signal word: | Warning |
| Hazard statements: | May form combustible dust concentrations in air. |
| Precautionary Statements | |
| General: | None |
| Prevention: | None |
| Response: | None |
| Storage: | None |
| Disposal: | None |
| Other Hazards | |
| Other hazards: | Dust can cause mechanical irritation of the eyes, skin, and respiratory tract. |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | % |
|--|-----------|-------|
| Sodium salt of poly-naphthalenesulfonic acid | 9084-06-4 | 78-92 |
| Water | 7732-18-5 | 5-10 |
| Sodium sulfate | 7757-82-6 | 2-12 |

Occupational exposure limits, if available, are listed in section 8.

SECTION 4. FIRST AID MEASURES

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| First Aid Measures | |
| General advice: | No action shall be taken involving any personal risk or without suitable training. |

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| Eye contact: | Do not allow victim to rub eyes. Rinse immediately with water for several minutes. Remove contact lenses, if present and easy to do, without interrupting rinsing. Have victim keep eyes open during rinsing and occasionally lift upper and lower lids. If eye irritation persists: Get medical advice/attention. |
| Skin contact: | Wash with plenty of water. Remove contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. Wash clothing and shoes before reuse. |
| Inhalation: | Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if the person is unwell. |
| Ingestion: | Wash out mouth with water. Remove dentures if any. Call a POISON CENTER/doctor/physician if the person feels unwell or if large quantities have been ingested. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs naturally, position victim to prevent aspiration and rinse out mouth with water. |

Potential Acute Health Effects

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| Eye contact: | In case of eye contact, may cause slight eye irritation. Exposure to airborne concentration above the statutory or recommended exposure limits may cause slight eye irritation. |
| Skin contact: | Prolonged skin contact may cause slight skin irritation. |
| Inhalation: | Exposure to airborne concentration above the statutory or recommended exposure limits may cause slight respiratory tract irritation. |
| Ingestion: | May be hazardous if ingested in large quantities. |

Over-Exposure Signs/Symptoms

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| Eye contact: | Adverse symptoms may include irritation and/or redness. |
| Skin contact: | Prolonged skin contact may cause slight skin irritation. |
| Inhalation: | Adverse symptoms may include respiratory tract irritation and/or coughing. |
| Ingestion: | No information available. |

Immediate Medical Attention and Special Treatment

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| Notes to physicians: | Treat symptomatically. No specific antidote known. Contact a poison treatment specialist immediately if large quantities have been ingested. |
| Specific treatments | No specific treatment known. |

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media

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| Suitable: | Use extinguishing media suitable for surrounding materials. |
| Unsuitable: | Do not use water jet. |

Specific Hazards Arising from the Product

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| Flammability classification: | Combustible dust (Category 1) |
| Hazardous product combustion: | May produce toxic fumes of carbon oxides, sulfur oxides and sodium oxides if burning. |
| Special hazards: | Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Avoid generating dust. The product may be combustible at high temperature. |

Special Protective Equipment and Precautions for Firefighters

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| Protective equipment: | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. |
| Special firefighting procedures: | Avoid dispersal of dust in air. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

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| Non-emergency personnel: | Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-emergency personnel should evacuate surrounding areas in case of important spill. No action shall be taken involving any personal risk or without suitable training. |
| Emergency personnel: | If dust is generated, remove all ignition sources. Avoid dispersal of dust in air. Non-sparking tools should be used. Provide sufficient ventilation. Wear suitable protective equipment. |
| Environmental precautions: | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities according to local and regional authority requirements. |

Methods and Materials for Containment and Cleaning Up

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| Small spills: | Vacuum or carefully scoop up material and place in an appropriate waste disposal container. Avoid creating dusty conditions. Finish cleaning by spreading water on the contaminated surface. Dispose of according to local and regional authority requirements. |
| Large spills: | Clean up large spills with a vacuum truck. Avoid creating dusty conditions. Finish cleaning by spreading water on the contaminated surface. Dispose of according to local and regional authority requirements. |

Other Information

Refer to section 7 Handling and Storage for additional precautionary measures.
 Refer to section 8 Exposure Controls and Personal Protection for more information on personal protective equipment.
 Refer to section 13 Disposal considerations for disposal information.

SECTION 7. HANDLING AND STORAGE

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| Precautions for safe handling: | Do not handle until all safety precautions have been read and understood. Use only with appropriate ventilation. Minimize dust generation and accumulation. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Take precautionary measures against static discharges, such as electrical grounding. Put on appropriate personal protective equipment. Do not ingest. Avoid contact with skin, eyes, and clothing. Do not breathe dust. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Wash hands, forearms, and face thoroughly after handling. Wash contaminated clothing before reusing. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. |
| Conditions for safe storage: | Keep container tightly closed. Keep container in a cool, dry, well-ventilated area. Keep away from ignition sources. Store away from incompatibles. Store in accordance with local regulations. |
| Incompatible materials: | Strong oxidizing agents, strong acids, and strong bases. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Control Parameters | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|---|------------|------|----------|------|-----------|-----|
| | TWA | STEL | TWA | STEL | 8-hr TWA | TWA |
| Chemical Name | | | | | | |
| Sodium salt of poly- naphthalenesulfonic acid | N/A | N/A | N/A | N/A | N/A | N/A |
| Sodium sulfate | N/A | N/A | N/A | N/A | N/A | N/A |

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| Recommended monitoring procedures: | Workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation and/or the necessity to use respiratory protective equipment. Refer to national guidance documents and to monitoring standards for methods for determination of hazardous substances. |
| Appropriate engineering controls: | Use with adequate ventilation to control airborne levels. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems such as exhaust ducts, dust collectors, vessels and processing equipment are designed in a manner to prevent the escape of dust into the work area. Use only appropriately classified electrical equipment and powered industrial trucks. Refer to the ACGIH manual "Industrial Ventilation, a Manual of Recommended Practices". |
| Individual Protection Measures | |
| Eyes/face protection: | Safety eyewear complying with an approved standard should always be worn when handling chemical products. |
| Skin/hand protection: | Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should always be worn when handling chemical products. |
| Body protection: | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory protection: | Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If risk assessment indicates the use of a respirator is necessary, it must be properly fitted, and complying with an approved standard. Advice should be sought from respiratory protection specialists. |
| Other protective equipment: | Ensure that eyewash stations and safety showers are close to the workstation location. |
| General hygiene considerations: | Do not breathe dust. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using chemical products. Appropriate technique should be used to remove potentially contaminated clothing. Remove contaminated clothing and protective equipment before entering eating areas. Wash hands, forearms, and face thoroughly after handling chemical products. Wash contaminated clothing before reusing. Handle in accordance with good industrial hygiene and safety practice. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Physical state: Solid (powder); Color: Brown |
| Odor: | Slight, aromatic |
| Odor threshold: | Not available |
| pH: | 7 – 9 (10% solution) |
| Melting/freezing point: | Not available |
| Initial boiling point and boiling range: | Not applicable |
| Flash point: | Not applicable |
| Flash point method: | Not applicable |
| Evaporation rate: | Not applicable |
| Flammability (solid, gas): | Dust deflagration index (Kst): 39 bar·m/sec (weak explosion) |
| Upper/lower flammability or explosive limits: | Not applicable |

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| Vapor pressure: | Not applicable |
| Vapor density: | Not applicable |
| Relative density: | 0.6 – 0.8 (Water = 1) |
| Solubility: | Easily soluble in cold and hot water |
| Partition coefficient n-octanol/water: | Not available |
| Auto-ignition temperature: | >588°C |
| Decomposition temperature: | Not available |
| Viscosity: | Not applicable |

SECTION 10. STABILITY AND REACTIVITY

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| Reactivity: | May react with strong oxidizing agents. |
| Chemical stability: | The product is stable as is, under normal conditions of temperature and pressure. |
| Possibility of hazardous reactions: | Under normal conditions of storage and use, no hazardous reactions will occur. |
| Conditions to avoid: | Avoid excessive heat. Avoid dispersal of dust in air. Avoid ignition sources. |
| Incompatible materials: | Strong oxidizing agents, strong acids, and strong bases. |
| Hazardous decomposition products: | No hazardous decomposition products are anticipated as a result of normal use and storage. |

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Ingestion, eye contact, inhalation, skin contact.

Potential Chronic Health Effects

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| Chronic effects: | No data available. |
| Target organs: | No data available. |
| Medical conditions aggravated by over-exposure: | None known. |
| Effect of repeated exposure: | No data available. |
| Interactive effects: | Not available. |
| Other information: | None. |

Acute Toxicity Data

| Product Name | Test | Result | Route | Species |
|--------------------------|------|--------------|--------|---------|
| Polynaphthalene (powder) | LD50 | >2000 mg/kg* | Oral | Rat |
| Polynaphthalene (powder) | LD50 | >2000 mg/kg* | Dermal | Rat |

*Based on similar product

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| Skin corrosion or irritation: | Testing of similar product on rabbit skin caused slight skin irritation (mean score of 0.3 at 24h, 48h and 72h for erythema/eschar). This product does not meet the established regulatory classification criteria. |
| Serious eye damage or irritation: | Testing of similar product on rabbit eye caused slight temporary irritation, fully reversible at 48h or less (conjunctivae redness, iritis), not severe enough to result in classification according to the established regulatory criteria. |
| Respiratory sensitization: | No data available. |

Skin sensitization: No data available.

Germ cell mutation: No data available.

Carcinogenicity: This product contains ingredients at concentration lower than 0.1% that are listed as known, presumed or suspected carcinogens by IARC, ACGIH, NTP, EPA or OSHA. The product does not meet the established regulatory classification criteria for carcinogenicity. No adverse effects are anticipated resulting from normal workplace exposure to this product.

Reproductive toxicity: This product contains up to 0.5% of methanol. The State of California considers methanol to be a reproductive toxin, based on animal data. However, the reproductive toxicity observed in laboratory animals at very high concentration and prolonged exposure is not relevant to human industrial exposure. No adverse effects are anticipated resulting from normal workplace exposure to this product.

Aspiration hazard: No information available.

Specific Target Organ Toxicity

Single exposure: This product is not classifiable as a target organ toxicant (single exposure) according to the cut-off values/concentrations limits triggering classification of a mixture.

Repeated exposure: This product does not contain ingredients that are target organ toxicant after repeated exposure.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Data

| Toxicity | Test | Result | Route | Species |
|--------------------|------|--------|-------|---------|
| No data available. | | | | |

Persistence and degradability: The product is not readily biodegradable. The BOD5 is 24000 mg/L*. The COD is 1800000 mg/L. (*Based on similar product).

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Other adverse effects: Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection, waste disposal legislation and any federal, state, regional and local authority requirements. Recycle if possible.

Disposal of empty containers: Emptied containers retain product residue. Disposal of empty containers should comply with the requirements of environmental protection, waste disposal legislation and any federal, state, regional and local authority requirements.

Waste classification: It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

Consult your local or regional authorities.
Refer to section 7 for handling precautions and to section 8 for information on personal protective equipment.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information

| | UN No. | Proper Shipping Name | Transport Class | Packing Group |
|--|--------|----------------------|-----------------|---------------|
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|------|---------------|----------------|---|---|
| DOT | Not regulated | Not applicable | - | - |
| TDG | Not regulated | Not applicable | - | - |
| IMDG | Not regulated | Not applicable | - | - |
| IATA | Not regulated | Not applicable | - | - |

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Other Information NMFC (National Motor Freight Carriers)
Freight Class: 77.5

SECTION 15. REGULATORY INFORMATION

United States

TSCA 8(B) inventory: All ingredients are listed on TSCA inventory or are exempted.

California Proposition 65

Warning!

This product contains chemicals known to the state of California to cause cancer, at concentration lower 0.1%. This product contains up to 0.5% of a chemical known to the state of California to cause birth defect or other reproductive harm.

Canada

CEPA DSL: All the ingredients are on the Domestic Substance List of Environment Canada

SECTION 16. OTHER INFORMATION

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|------------------------|----------------------|---|---------------|
| NFPA Rating: | Health - | Flammability - | Instability - |
| SDS Prepared By: | Avanti International | | |
| Date of Preparation: | December 1, 2020 | | |
| Date of Last Revision: | | | |
| Revision Indicators: | | | |
| Key to Abbreviations: | ACGIH® | American Conference of Governmental Industrial Hygienists | |
| | NFPA | National Fire Protection Association | |
| | NIOSH | National Institute for Occupational Safety and Health | |
| | OSHA | US Occupational Safety and Health Administration | |
| | RTECS® | Registry of Toxic Effects of Chemical Substances | |