

Material Safety Data Sheet

| HAZARD WARNINGS | RISK PHRASES | PROTECTIVE CLOTHING |
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| | The health risks of this compound have not been fully determined. Exposure may cause irritation of the skin, eyes, and respiratory system. |     |

Section I. Chemical Product and Company Identification

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| Chemical Name | n-Pentadecane | | |
| Catalog Number | P0606 | Supplier | TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616 |
| Synonym | Not available. | | |
| Chemical Formula | CH ₃ (CH ₂) ₁₃ CH ₃ | | |
| CAS Number | 629-62-9 | In case of Emergency Call | Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International) |

Section II. Composition and Information on Ingredients

| Chemical Name | CAS Number | Percent (%) | TLV/PEL | Toxicology Data |
|---------------|------------|----------------|----------------|---|
| n-Pentadecane | 629-62-9 | Min. 99.0 (GC) | Not available. | Mouse LD ₅₀ (intravenous) 3494 mg/kg |

Section III. Hazards Identification

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| Acute Health Effects | No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound. |
| Chronic Health Effects | CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY : Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions. |

Section IV. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Inhalation | If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve. |
| Ingestion | INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. |

Section V. Fire and Explosion Data

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| Flammability | May be combustible at high temperature. | Auto-Ignition | Not available. |
| Flash Points | 132°C (269.6°F). | Flammable Limits | LOWER: 0.45% UPPER: 6.5% |
| Combustion Products | These products are toxic carbon oxides (CO, CO ₂). | | |
| Fire Hazards | Not available. | | |
| Explosion Hazards | Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. | | |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations. | | |

Section VI. Accidental Release Measures

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| Spill Cleanup Instructions | Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal. |
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Section VII. Handling and Storage

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| Handling and Storage Information | Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe gas/fumes/ vapor/spray. Always store away from incompatible compounds such as oxidizing agents. |
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Section VIII. Exposure Controls/Personal Protection

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| Engineering Controls | Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location. |
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| Personal Protection | Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent. |
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| Exposure Limits | Not available. |
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Section IX. Physical and Chemical Properties

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| Physical state @ 20°C | Liquid. (Clear, colorless.) | Solubility | Very soluble in alcohol, ether. Insoluble in water. |
| Specific Gravity | 0.769 (water=1) | | |
| Molecular Weight | 212.41 | Partition Coefficient | Not available. |
| Boiling Point | 268 to 270 °C (514.4 to 518 °F) | Vapor Pressure | 0.5 Pa (@ 25 °C) |
| Melting Point | 10 °C (50 °F) (freezing point) | Vapor Density | 7.4 (Air = 1) |
| Refractive Index | 1.431 - 1.433 | Volatility | Not available. |
| Critical Temperature | Not available. | Odor | Not available. |
| Viscosity | Not available. | Taste | Not available. |

Section X. Stability and Reactivity Data

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| Stability | This material is stable if stored under proper conditions. (See Section VII for instructions) |
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| Conditions of Instability | Avoid excessive heat and light. |
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| Incompatibilities | Reactive with strong oxidizing agents. |
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Section XI. Toxicological Information

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| RTECS Number | RZ1800000 |
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| Routes of Exposure | Eye Contact. Ingestion. Inhalation. |
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| Toxicity Data | Mouse LD ₅₀ (intravenous) 3494 mg/kg |
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| Chronic Toxic Effects | CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY : Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions. |
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| Acute Toxic Effects | No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound. |
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Section XII. Ecological Information

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| Ecotoxicity | Not available. |
| Environmental Fate | n-Pentadecane's production and use in paraffin products, rubber manufacturing, the paper processing industry, and as a component of roofing asphalt, automobile exhaust, crude oil and jet fuel may result in its release to the environment through various waste streams. If released to air, a vapor pressure of 3.4X10 ⁻³ mm Hg at 25 deg C indicates n-pentadecane will exist solely as a vapor in the ambient atmosphere. Vapor-phase n-pentadecane will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 17 hours. n-Pentadecane is not expected to absorb UV light in the environmentally significant range of >290 nm. If released to soil, n-pentadecane is expected to have essentially no mobility based upon an estimated Koc of 800,000. Volatilization from moist soil surfaces is expected to be an important fate process based upon an estimated Henry's Law constant of 13 atm-cu m/mole, but may be attenuated by adsorption. Volatilization from dry soil surfaces should not be important given the vapor pressure of this compound. It reached 54.8% of its theoretical BOD in 2 weeks using an activated sludge inoculum. Loss of 6 and 40% of n-pentadecane was observed within 5 and 15 days, respectively, from crude oil added to a seawater solution. Bacteria from sediment cultured in water were able to utilize 7-29% of the n-pentadecane from a petroleum hydrocarbon mixture. If released into water, n-pentadecane is expected to adsorb to suspended solids and sediment in water based on the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based on its Henry's Law constant. The estimated volatilization half-life from a model river is estimated as approximately 4 hours. The estimated volatilization half-life from a model lake is estimated as approximately 6 days. However, the estimated Koc of 800,000 suggests that volatilization could be greatly attenuated by adsorption to suspended solids and sediments in water. A BCF range of 6.8 to 20.4 suggests that bioconcentration in aquatic organisms is low. Hydrolysis is not expected to occur due to the lack of hydrolyzable functional groups. Occupational exposure to n-pentadecane may occur through inhalation and dermal contact with this compound at workplaces where n-pentadecane is produced or used. The general population may be exposed to n-pentadecane via inhalation of ambient air, ingestion of food and drinking water, and dermal contact with vapors, food and other products containing n-pentadecane. |

Section XIII. Disposal Considerations

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| Waste Disposal | Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance. |
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Section XIV. Transport Information

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| DOT Classification | Not a DOT controlled material (United States). |
| PIN Number | Not applicable. |
| Proper Shipping Name | Not applicable. |
| Packing Group (PG) | Not applicable. |
| DOT Pictograms |  |

Section XV. Other Regulatory Information and Pictograms

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| TSCA Chemical Inventory (EPA) | This compound is ON the EPA Toxic Substances Control Act (TSCA) inventory list. |
| WHMIS Classification (Canada) | Not controlled under WHMIS (Canada). On DSL |
| EINECS Number (EEC) | 211-098-1 |
| EEC Risk Statements | Not available. |
| Japanese Regulatory Data | ENCS No. 2-10 |

Section XVI. Other Information

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Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.