



# Safety Data Sheet

## n-Pentane

### Section 1: Product and Company Identification

**Middlesex Gases & Technologies**

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Product Code: n-Pentane

### Section 2: Hazards Identification



## Danger

**Hazard Classification:**

Aspiration Hazard (Category 1)  
Gases Under Pressure  
Specific target organ toxicity (Single Exposure) (Category 3)

**Hazard Statements:**

Contains gas under pressure; may explode if heated  
May be fatal if swallowed and enters airways  
May cause respiratory irritation;  
Toxic to aquatic life with long lasting effects

**Precautionary Statements****Prevention:**

Use only outdoors or in a well-ventilated area.  
Avoid breathing dust/fume/gas/mist/ vapors/spray.  
[In case of inadequate ventilation] wear respiratory protection.

**Response:**

Do NOT induce vomiting.  
If swallowed: Rinse mouth. Do NOT induce vomiting.  
Immediately call a poison center or doctor.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
Protect from sunlight.

Store locked up.

**Disposal:**

Dispose of contents and/or container in accordance with applicable regulations.

## Section 3: Composition/Information on Ingredients

<b>CAS #</b>
109-66-0

Chemical Substance	Chemical Family	Trade Names
N-PENTANE	hydrocarbons, aliphatic	PENTANE; AMYL HYDRIDE; UN 1265; C5H12

## Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Aspiration hazard. DO NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Get immediate medical attention. Give artificial respiration if not breathing.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.	Not available

## Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Regular dry chemical, carbon dioxide, water, regular foam Large fires: Use regular foam or flood with fine water spray.	Carbon monoxide, carbon dioxide and toxic and irritating fumes	<ul style="list-style-type: none"><li>Any self-contained breathing apparatus with a full facepiece.</li><li>Any self-contained breathing apparatus with a full facepiece.</li></ul>

## Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.

Methods for Cleanup	Other Information
Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.	Not available

## Section 7: Handling and Storage

Handling	Storage
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Handling	Storage
Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. See original container for storage recommendations.	Grounding and bonding required. Keep separated from incompatible substances.

## Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
PENTANE: 1000 ppm (2950 mg/m <sup>3</sup> ) OSHA TWA 600 ppm (1770 mg/m <sup>3</sup> ) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 750 ppm (2210 mg/m <sup>3</sup> ) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 600 ppm ACGIH TWA 120 ppm (350 mg/m <sup>3</sup> ) NIOSH recommended TWA 10 hour(s) 610 ppm (1800 mg/m <sup>3</sup> ) NIOSH recommended ceiling 15 minute(s)

### Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Any self-contained breathing apparatus with a full facepiece.

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Liquid	Clear	Colorless	N/A	Liquid	Gasoline odor	N/A

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
<-40 F (<-40 C) (CC)	IA	Not available	500 F (260 C)	0.078	0.014

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
96.93 F (36.07 C)	-201.5 F (-129.7 C)	400 mmHg @ 18.5 C	2.5 (Air=1)	0.626	0.0004	Not available	2.2-5000 ppm	28.6 (butyl acetate=1)	<32 SUS

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
72.15g/mol	C5-H12	Not available	Not available	Not available	Not available	Soluble: Alcohol, ether, acetone, benzene, chloroform

## Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Oxidizing materials, combustible materials, halogen compounds

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Oxides of carbon	Will not polymerize.

## Section 11: Toxicology Information

### Acute Effects

Oral LD50	Dermal LD50	Inhalation
>2000 mg/kg oral-rat LD50	Not available	Irritation, nausea, difficulty breathing, headache, drowsiness, dizziness, disorientation, mood swings, loss of coordination, central nervous system depression, asphyxiant

Eye Irritation	Skin Irritation	Sensitization
Irritation	Irritation	Respiratory tract irritation, skin irritation, aspiration hazard, central nervous system depression

### Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not available	Not available	Not available	No data

## Section 12: Ecological Information

### Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: Not available Invertebrate toxicity: 3000000 ug/L 48 week(s) (Mortality) Pacific oyster ( <i>Crassostrea gigas</i> ) Algal toxicity: 1000 ug/L 8 year(s) EC50 (Photosynthesis) Algae, phytoplankton, algal mat (Algae) Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available

## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Pentanes	UN1265	3	II	3	N/A	N/A	N/A

### Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Pentanes	UN1265	3	II

## Section 15: Regulatory Information

### U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated.	Not regulated.	Not regulated.

### SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	No	Yes	No	No

### SARA 372.65

Not regulated.

### OSHA Process Safety

Not regulated.

### State Regulations

#### CA Proposition 65

Not regulated.

### Canadian Regulations

#### WHMIS Classification

B2

### National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDL)
Listed on inventory.	PENTANE CAS NUMBER: 109-66-0 SECTION 4	Listed on inventory.

## Section 16: Other Information

#### NFPA Rating

HEALTH=2 FIRE=4 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard