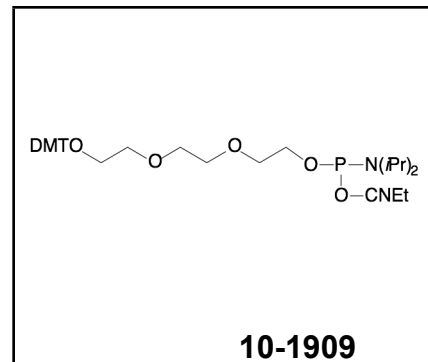


### 1. Product and Company Identification

Product Code: 10-1909-xx  
Product Name: Spacer Phosphoramidite 9  
Product Use: For Research Use Only  
Manufacturer Information  
Company Name: Glen Research LLC  
22825 Davis Drive  
Sterling, VA 20164 USA  
1-703-437-6191  
www.glenresearch.com  
msds@glenres.com  
Phone Number: 1-703-437-6191  
Web site address: www.glenresearch.com  
Email address: msds@glenres.com  
Information in case of emergency: 1-703-437-6191  
CAS Number: 146668-73-7  
Synonyms: Spacer Phosphoramidite 9



### 2. Hazards Identification

#### GHS Hazard Statements

H303: May be harmful if swallowed.  
H313: May be harmful in contact with skin.  
H320: Causes eye irritation.  
H333: May be harmful if inhaled.

#### GHS Precautionary Statements

P103: Read label before use.  
P232: Protect from moisture.  
P233: Keep container tightly closed.  
P280: Wear protective gloves / protective clothing / eye protection / face protection.

#### GHS Response Statements

P301 + 330: IF SWALLOWED: Rinse mouth with water.  
P302 + 350: IF ON SKIN: Gently wash with soap and water.  
P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + 351 + 338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do so - continue rinsing.  
P306 + 360: IF ON CLOTHING: Rinse contaminated clothing and skin immediately with plenty of water before removing clothes.  
P314: Get medical advice / attention if you feel unwell.  
P362: Take off contaminated clothing and wash before use.

#### GHS Storage and Disposal Phrases

P401 Store in a cool, dry place  
P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

**SAFETY DATA SHEET**  
**Spacer Phosphoramidite 9**  
**(10-1909-xx)**

**Emergency Overview**

No known OSHA hazards. May cause eye, skin, and respiratory tract irritation.

**Route(s) of Entry:**

Inhalation? Yes      Skin? Yes      Eyes? Yes      Ingestion? Yes

**Potential Health Effects (Acute and Chronic)**

No data available.

**Recommended Exposure Limits**

No data available.

**LD 50 / LC 50**

No data available.

**Signs and Symptoms of Exposure**

No data available.

**Medical Conditions Generally Aggravated By Exposure**

No data available.

**3. Composition/Information on Ingredients**

Product Name	CAS #	Concentration	M.W.	Formula
Spacer Phosphoramidite 9	146668-73-7	100 %	652.77	C <sub>36</sub> H <sub>49</sub> N <sub>2</sub> O <sub>7</sub> P
Synonyms:	Spacer Phosphoramidite 9			

**4. First Aid Measures****Emergency and First Aid Procedures**

If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

Get medical attention.

In case of skin contact, immediately wash skin with soap and plenty of water.

Remove contaminated clothing.

Wash clothing before reuse.

Get medical attention if symptoms occur after washing.

If swallowed, rinse mouth with water.

Get medical attention.

If in contact with eyes, rinse cautiously with water for several minutes.

Get medical attention if symptoms occur after washing.

Remove contact lenses if present and continue rinsing.

**SAFETY DATA SHEET**  
**Spacer Phosphoramidite 9**  
**(10-1909-xx)**

**5. Fire Fighting Measures**

**Flash Point:** No data  
**Explosive Limits:** LEL: No data UEL: No data

**Fire Fighting Instructions**

A finely divided dust aerosol may be explosive, although the exact conditions of the hazards are unknown.  
Wear appropriate protective clothing to prevent contact with skin and eyes.  
Wear a self-contained breathing apparatus (SCBA) if necessary.

**Flammable Properties and Hazards**

No data available.

**Hazardous Combustion Products**

Oxides of Nitrogen, Carbon and Phosphorus

**Suitable Extinguishing Media**

Use a Class A Extinguisher (Dry chemical, carbon dioxide, water or foam).

**Unsuitable Extinguishing Media**

No data available.

**6. Accidental Release Measures**

**Steps To Be Taken In Case Material Is Released Or Spilled**

Sweep up bulk of material and finish by wiping with a damp towel. Do not let product enter the drain.  
Wear impermeable gloves, safety glasses and a lab coat when cleaning up the spill.  
A NIOSH dust mask is recommended when a possibility of dust inhalation exists. Local exhaust is usually sufficient.

**7. Handling and Storage**

**Precautions To Be Taken in Handling**

Handle using safe laboratory practices. Avoid all direct contact.

**Recommended Storage**

Freezer storage, -10 to -30°C, dry

**Precautions To Be Taken in Storing**

Keep container tightly closed. Store in well-ventilated place.

**Other Precautions**

Protect from sunlight.

**8. Exposure Controls/Personal Protection**

<b>Product Name</b>	<b>CAS #</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>Other Limits</b>
Spacer Phosphoramidite 9	146668-73-7	No data	No data	No data

**Respiratory Equipment (Specify Type)**

A NIOSH dust mask is recommended when a possibility of dust inhalation exists.

**Eye Protection**

Safety glasses

**Protective Gloves**

Impermeable gloves

**Other Protective Clothing**

Normal laboratory apparel

**Engineering Controls (Ventilation etc.)**

Local exhaust ventilation is usually sufficient

**Work/Hygienic/Maintenance Practices**

Wash hands after handling

**SAFETY DATA SHEET**  
**Spacer Phosphoramidite 9**  
**(10-1909-xx)**

### 9. Physical and Chemical Properties

Physical State:	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Solid
Appearance:	Colorless to light yellow oil		
Odor:	Odorless		
Odor Threshold:	No data		
pH:	No data		
Melting Point:	No data		
Freezing Point:	No data		
Initial Boiling Point and Boiling Range:	No data		
Flash Point:	No data		
Specific Gravity:	~1		
Evaporation Rate (Water=1):	<< 1		
Flammability:	No data		
Explosive Limits:	LEL: No data	UEL: No data	
Vapor Pressure (vs. Air or mm Hg):	No data		
Vapor Density (vs. Air = 1):	No data		
Relative Density:	No data		
Solubility in Water:	No data		
Partition Coefficient (n-octanol/water):	No data		
Auto-ignition Temperature:	No data		
Decomposition Temperature:	No data		
Viscosity:	No data		
Percent Volatile:	No data		

### 10. Stability and Reactivity

**Stability:** Unstable  Stable

#### Conditions To Avoid - Instability

Stable under recommended storage conditions.

#### Incompatibility - Materials To Avoid

Strong oxidizing reagents

#### Hazardous Decomposition or Byproducts

Oxides of nitrogen, carbon and phosphorus may evolve when heated to decomposition.

**Possibility of Hazardous Reactions:** Will occur  Will not occur

#### Conditions To Avoid - Hazardous Reactions

Stable material, hazardous polymerization will not occur.

### 11. Toxicological Information

To the best of our knowledge, the toxicological properties of this substance have not been investigated.

This product should be handled with the usual care when dealing with chemicals.

Product Name	CAS #	NTP	IARC	OSHA
Spacer Phosphoramidite 9	146668-73-7	No data	No data	No data

### 12. Ecological Information

No data available.

### 13. Disposal Considerations

#### Waste Disposal Method

For Product - Observe all federal, state and local regulations.

For Contaminated Packaging - Dispose of in compliance with regulations.

Sweep up bulk of material and finish by wiping with a damp towel. Dispose of unused product.

#### 14. Transport Information

**LAND TRANSPORT (49CFR)**

49CFR Shipping Name

Not a dangerous substance as defined in the regulations.

**AIR TRANSPORT (ICAO/IATA)**

ICAO/IATA Shipping Name

Not a dangerous substance as defined in the regulations.

**MARINE TRANSPORT (IMDG/IMO)**

IMDG/IMO Shipping Name

Not a dangerous substance as defined in the regulations.

Marine Pollutant:

No

**Additional Transport Information**

Not regulated as a hazardous material or dangerous goods.

#### 15. Regulatory Information

**Regulatory Information**

SARA 302 Components: No chemicals in this product are subject to reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This product does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

#### 16. Other Information

For all other inquiries about this product contact Glen Research at 1-800-327-GLEN or 1-703-437-6191.

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