

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) and Canadian  
Workplace Hazardous Material Information System (WHMIS 2015)

Revision date 10-Jun-2024

Revision Number 1

## 1. Identification

### Product identifier

Product Catalog Number:	Product Description:
10-4913-XX	[4-(4,4'-Dimethoxytrityloxy)butyramidomethyl]-1-(2-nitrophenyl)-ethyl]-2-cyanoethyl-(N,N-diisopropyl)-phosphoramidite

### Product Code(s)

10-4913-XX

### Product Name

PC Spacer Phosphoramidite

### Other means of identification

#### Synonyms

None

#### Registration Number(s)

CAS: 653575-45-2

### Recommended use of the chemical and restrictions on use

#### Recommended use

For research use only

#### Restrictions on use

Not for human diagnostic use

### Details of the supplier of the safety data sheet

#### Manufacturer Address

Glen Research LLC  
22825 Davis Drive  
Sterling, VA 20164 USA

### Emergency telephone number

#### Company Phone Number

1-703-437-6191

#### Website

www.glenresearch.com

#### E-mail address

support@glenresearch.com

## 2. Hazard(s) identification

### Classification

This product is not considered hazardous by either the US 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS 2015)

**Appearance** Powder

**Physical state** Solid

**Odor** Odorless

### Label elements

#### Hazard statements

This product is not considered hazardous by either the US 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS 2015)

**Other information**

No information available.

**3. Composition/information on ingredients****Substance**

Formula C43H53N4O8P

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
[4-(4,4'-Dimethoxytrityloxy)butyramidomethyl]-1-(2-nitrophenyl)-ethyl]-2-cyanoethyl-(N,N-diisopropyl)-phosphoramidite	653575-45-2	100	-	-

The product contains no substances which at their given concentration, are considered to be hazardous to health.

**4. First-aid measures****Description of first aid measures**

<b>General advice</b>	This product presents no hazards under normal conditions of use.
<b>Inhalation</b>	Not an expected route of exposure. IF exposed or concerned: Get medical advice/attention.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if symptoms occur.
<b>Ingestion</b>	Not an expected route of exposure. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

**Most important symptoms and effects, both acute and delayed****Symptoms** No information available.**Indication of any immediate medical attention and special treatment needed****Note to physicians** Treat symptomatically.**5. Fire-fighting measures****Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Nitrogen oxides (NOx). Carbon oxides. Phosphorus oxides.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required.
For emergency responders	Use personal protective equipment as required.

### Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. Handling and storage

### Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
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### Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep at temperatures between -10 and -30 °C. Keep containers tightly closed in a dry, cool and well-ventilated place.
Packaging materials	Glass. Plastic container.

## 8. Exposure controls/personal protection

### Control parameters

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
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### Appropriate engineering controls

Engineering controls	Showers
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Eyewash stations  
Ventilation systems.

#### **Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	If splashes are likely to occur:. Wear safety glasses with side shields (or goggles).
<b>Hand protection</b>	No special protective equipment required.
<b>Skin and body protection</b>	If there is a risk of contact:. Wear suitable protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>Other protective equipment</b>	No information available.
<b>Environmental exposure controls</b>	Avoid creating dust. Prevent product from entering drains.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Thermal hazards</b>	No information available.

## **9. Physical and chemical properties**

### **Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance</b>	Powder
<b>Color</b>	Off-white to yellow
<b>Odor</b>	Odorless
<b>Odor threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	No data available	No data available
<b>Melting point / freezing point</b>	No data available	No data available
<b>Initial boiling point and boiling range</b>	No data available	No data available
<b>Flash point</b>	No data available	No information available
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	No information available
<b>Flammability Limit in Air</b>		No information available
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	No information available
<b>Relative vapor density</b>	No data available	No information available
<b>Relative density</b>	~1	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility in other solvents</b>	No data available	No information available
<b>Partition coefficient</b>	No data available	No information available
<b>Autoignition temperature</b>	No data available	No information available
<b>Decomposition temperature</b>	No data available	No data available
<b>Kinematic viscosity</b>	No data available	No data available
<b>Dynamic viscosity</b>	No data available	No data available

### **Other information**

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	784.88
<b>VOC content</b>	No information available

Liquid Density	No information available
Bulk density	No information available

## 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None under normal use conditions.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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### Acute toxicity

Numerical measures of toxicity
No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Mobility in soil** No information available.

**Other adverse effects** No information available.

## 13. Disposal considerations

### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Dispose of in accordance with federal, state and local regulations. Do not reuse empty containers.

## 14. Transport information

**DOT** This product is not classified as dangerous goods, per U.S. DOT regulations under 49 CFR 172.101

**IATA** This product is not classified as Dangerous Goods, by rules of IATA.

**IMDG** This product is not classified as Dangerous Goods by the International Maritime Organization.

## 15. Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

**TSCA** Not determined.

**DSL/NDSL** Not determined.

**EINECS/ELINCS** Not determined.

**ENCS** Not determined.

**IECSC** Not determined.

**KECI** Not determined.

**PICCS** Not determined.

**AIIC** Not determined.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AIIC** - Australian Inventory of Industrial Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 0	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 0	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

**Revision date** 10-Jun-2024

**Revision Note** No information available

**Disclaimer**

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**End of Safety Data Sheet**