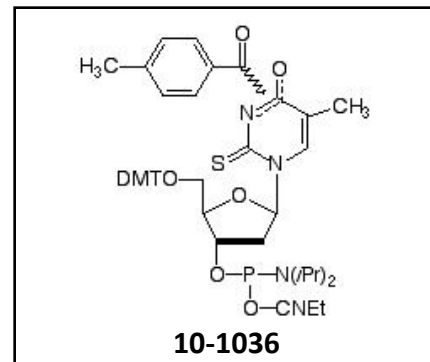


1. Product and Company Identification

Product Code: 10-1036-xx
 Product Name: 2-Thio-dT-CE Phosphoramidite
 Product Use: For Research Use Only
 Manufacturer Information
 Company Name: Glen Research LLC
 22825 Davis Drive
 Sterling, VA 20164 USA
 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: 156783-23-2
 Synonyms: 5'-Dimethoxytrityl-(N3/O4-toluoyl)-2'-deoxy-2-thioThymidine,
 3'-[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite



2. Hazards Identification

GHS Classification of the substance or mixture

Not a hazardous substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture

Other hazards which do not result in classification

None

3. Composition/Information on Ingredients

Essentially 100% 2-Thio-dT-CE Phosphoramidite

| Product Name | CAS # | Concentration | M.W. | Formula |
|------------------------------|-------------|---------------|--------|--|
| 2-Thio-dT-CE Phosphoramidite | 156783-23-2 | 100 % | 879.02 | C ₄₈ H ₅₅ N ₄ O ₈ PS |

Synonyms: 5'-Dimethoxytrityl-(N3/O4-toluoyl)-2'-deoxy-2-thioThymidine,
 3'-[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite

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

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.

SAFETY DATA SHEET
2-Thio-dT-CE Phosphoramidite
(10-1036-xx)

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.

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 phosphorous

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

Refrigerated storage, maximum of 2-8°C, dry

Precautions To Be Taken in Storing

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

Other Precautions

Protect from sunlight.

SAFETY DATA SHEET
2-Thio-dT-CE Phosphoramidite
(10-1036-xx)

8. Exposure Controls/Personal Protection

| <i>Product Name</i> | <i>CAS #</i> | <i>OSHA PEL</i> | <i>ACGIH TLV</i> | <i>Other Limits</i> |
|--|--------------|-----------------|------------------|---------------------|
| 2-Thio-dT-CE Phosphoramidite | 156783-23-2 | 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 | | | | |

9. Physical and Chemical Properties

| | | | |
|--|--|--------------|-----------|
| Physical State: | [] Gas | [] Liquid | [X] Solid |
| Appearance: | White to off-white free-flowing powder | | |
| 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 | | |

SAFETY DATA SHEET
2-Thio-dT-CE Phosphoramidite
(10-1036-xx)

10. Stability and Reactivity

Stability: Unstable [] Stable [X]
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 phosphorous may evolve when heated to decomposition.
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
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 |
|------------------------------|-------------|---------|---------|---------|
| 2-Thio-dT-CE Phosphoramidite | 156783-23-2 | 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 material as defined in the regulations. |
| AIR TRANSPORT (ICAO/IATA) | |
| ICAO/IATA Shipping Name | Not a dangerous goods as defined in the regulations. |
| MARINE TRANSPORT (IMDG/IMO) | |
| IMDG/IMO Shipping Name | Not a dangerous goods as defined in the regulations. |
| Marine Pollutant: | No |
| Additional Transport Information | |
| Not regulated as a hazardous material or dangerous goods. | |

15. Regulatory Information

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

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.

This product has been reviewed for inclusion on the Candidate List of Substances of Very High Concern (SVHC) REACH – not listed.

This product has been reviewed for inclusion on the Substances Restricted under REACH – not listed

16. Other Information

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

The information provided herein is based on sources believed to be reliable as of November 4, 2020 and pertains only to the material designated. Glen Research LLC makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with the pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local regulations.