

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

Revision date 12-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Cyanine 5 CE-Phosphoramidite

### Other means of identification

**Product Code(s)** LK2521

**Synonyms** None

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

**Recommended use** Laboratory use

**Restrictions on use** Not to be used for human or animal consumption

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

#### **Supplier Address**

LGC Genomics Ltd.  
3 Mallard Way, Strathclyde Business Park  
Bellshill ML4 3BF  
UK  
Tel: +44 (0) 1698 849911 (between 9am-5pm GMT)

**E-mail** sds-request@lgcgroup.com

### Emergency telephone number

#### **Emergency Telephone**

CHEMTREC  
Within USA: 1-800-424-9300  
Outside USA: 001-703-527-3887

## 2. Hazard(s) identification

### Classification

Classified according to OSHA.

|  |            |
|--|------------|
| Acute toxicity - Oral                            | Category 4 |
| Skin corrosion/irritation                        | Category 2 |
| Serious eye damage/eye irritation                | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |

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Chronic aquatic toxicity

Category 3

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements**

**Warning**

**Hazard statements**

Classified according to OSHA.

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

Harmful to aquatic life with long lasting effects



**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear protective gloves/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of water and soap

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

**Precautionary Statements - Storage**

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

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

Harmful to aquatic life.

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## 3. Composition/information on ingredients

### Substance

**Formula** C60 H72 Cl N4 O4 P

| Chemical name                | CAS No. | Weight-% | Trade secret |
|------------------------------|---------|----------|--------------|
| Cyanine 5 CE-Phosphoramidite | -       | 100      | *            |

## 4. First-aid measures

### Description of first aid measures

|   |   |
|---|---|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance.  |
| <b>Inhalation</b>                         | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.  |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.  |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.   |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).   |

### Most important symptoms and effects, both acute and delayed

**Symptoms** May cause redness and tearing of the eyes. Burning sensation.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable Extinguishing Media</b>      | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Large Fire</b>                        | CAUTION: Use of water spray when fighting fire may be inefficient.                                      |
| <b>Unsuitable extinguishing media</b>    | Do not scatter spilled material with high pressure water streams.                                       |
| <b>Specific hazards arising from the</b> | No information available.   |

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chemical

### 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. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

#### Other information

Refer to protective measures listed in Sections 7 and 8.

### 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

Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

## 8. Exposure controls/personal protection

### Control parameters

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

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering controls** Showers  
 Eyewash stations  
 Ventilation systems.

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

**Eye/face protection** If splashes are likely to occur, wear safety glasses with side-shields. Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective Viton™ gloves.

**Skin and body protection** Long sleeved clothing. Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical state</b> | Solid                    |
| <b>Appearance</b>     | Powder                   |
| <b>Color</b>          | blue                     |
| <b>Odor</b>           | No information available |
| <b>Odor threshold</b> | No information available |

| <b>Property</b>                                | <b>Values</b>     | <b>Remarks • Method</b> |
|--|-------------------|-------------------------|
| <b>pH</b>                                      | No data available | None known              |
| <b>Melting point / freezing point</b>          | No data available | None known              |
| <b>Initial boiling point and boiling range</b> | No data available | None known              |
| <b>Flash point</b>                             | No data available | None known              |
| <b>Evaporation rate</b>                        | No data available | None known              |
| <b>Flammability</b>                            | No data available | None known              |

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|   |                          |            |
|---|--------------------------|------------|
| <b>Flammability Limit in Air</b>              |                          | None known |
| <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        | None known |
| <b>Relative vapor density</b>                 | No data available        | None known |
| <b>Relative density</b>                       | No data available        | None known |
| <b>Water solubility</b>                       | No data available        | None known |
| <b>Solubility(ies)</b>                        | No data available        | None known |
| <b>Partition coefficient</b>                  | No data available        | None known |
| <b>Autoignition temperature</b>               | No data available        | None known |
| <b>Decomposition temperature</b>              |                          | None known |
| <b>Kinematic viscosity</b>                    | No data available        | None known |
| <b>Dynamic viscosity</b>                      | No data available        | None known |
| <b>Other information</b>                      |                          |            |
| <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>                       | 979.66                   |            |
| <b>VOC content</b>                            | No information available |            |
| <b>Liquid Density</b>                         | No information available |            |
| <b>Bulk density</b>                           | No information available |            |

### 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | No information available.                            |
| <b>Chemical stability</b>                 | Stable under normal conditions.                      |
| <b>Possibility of hazardous reactions</b> | None under normal processing.                        |
| <b>Conditions to avoid</b>                | None known based on information supplied.            |
| <b>Incompatible materials</b>             | Strong acids. Strong bases. Strong oxidizing agents. |
| <b>Hazardous decomposition products</b>   | None known based on information supplied.            |

### 11. Toxicological information

#### Information on likely routes of exposure

##### Product Information

|                    |   |
|--------------------|---|
| <b>Inhalation</b>  | Specific test data for the substance or mixture is not available.   |
| <b>Eye contact</b> | Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain. |

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**Skin contact**

Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

**Ingestion**

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

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

**Symptoms**

Redness. May cause redness and tearing of the eyes.

**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**

Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes serious eye irritation.

**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**

May cause respiratory irritation.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**Other adverse effects**

No information available.

**Interactive effects**

No information available.

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### 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

**Persistence and degradability** No information available.

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

**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** Do not reuse empty containers.

### 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

### 15. Regulatory information

#### International Inventories

**TSCA** LGC has not confirmed that the chemical substances in this product are on the TSCA Inventory, and LGC is distributing this product solely for use either in applications statutorily exempt from TSCA and regulated under other laws (e.g., FFDCA, FIFRA) or in research and development activities in accordance with the TSCA Inventory R&D exemption provided at 40 CFR 720.36. It is the end-user's responsibility to understand and follow the requirements that apply to its use of this product.



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| Chemical name                | CAS No. | Inventory Listing Status | Commercial Activity Designation |
|------------------------------|---------|--------------------------|---------------------------------|
| Cyanine 5 CE-Phosphoramidite | -       | -                        | Unknown *                       |

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

|                      |   |
|----------------------|---|
| <b>DSL/NDL</b>       | Contact supplier for inventory compliance status. |
| <b>EINECS/ELINCS</b> | Contact supplier for inventory compliance status. |
| <b>ENCS</b>          | Contact supplier for inventory compliance status. |
| <b>IECSC</b>         | Contact supplier for inventory compliance status. |
| <b>KECL</b>          | Contact supplier for inventory compliance status. |
| <b>PICCS</b>         | Contact supplier for inventory compliance status. |
| <b>AIC</b>           | Contact supplier for inventory compliance status. |

## Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDL** - 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
- AICS** - Australian Inventory of Chemical Substances

## 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

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## 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> 2 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Special hazards</b> -     |
| <b>HMIS</b> | <b>Health hazards</b> 2 | <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                 |

## **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

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**Revision Note** No information available.

## Disclaimer

The information in this Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) This document is intended only as a

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guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, we cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. We warrant that the chemical meets the specifications set forth on the label. We (LGC/VHG/ARMI) disclaim any other warranties, expressed or implied with regard to the product supplied hereunder, its merchantability or its fitness for a particular purpose. The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. Read all precautionary information.

**End of Safety Data Sheet**