



# SAFETY DATA SHEET

SD2063-R00

## 1. Identification

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### GHS PRODUCT IDENTIFIER

Product name: LNA-dmf-G-CE Phosphoramidite

### OTHER MEANS OF IDENTIFICATION

Item number: 2063

Catalogue number(s): 2063-YZZZ, where Y=letters A-Z, ZZZ=numbers 000-999

Brand: Not applicable.

### RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

For laboratory and manufacturing use. Not for drug, household or other use.

### SUPPLIER'S DETAILS

LGC Genomics	Tel:	+44 (0) 1698 849911
3 Mallard Way	Fax:	+44 (0) 1698 849922
Strathclyde Business Park	E-Mail:	sales@linktech.co.uk
Bellshill		
Lanarkshire, ML4 3BF		
Scotland		

### EMERGENCY PHONE NUMBER

+44 (0) 1698 849911 (Monday to Friday 8 am to 6 pm)

## 2. Hazard identification

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### GHS CLASSIFICATION OF THE SUBSTANCE/MIXTURE

Signal word:	Warning
Acute toxicity, oral:	Category 5
Acute toxicity, dermal:	Category 5
Acute toxicity, inhalation:	Category 5
Serious eye damage/eye irritation:	Category 2B

### GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

#### Hazard Statements

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

**Precautionary Statements**Prevention

P264 Wash hands thoroughly after handling.

Response

P312 Call a doctor if you feel unwell.

P304 + P312 IF INHALED: Call a doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

**OTHER HAZARDS**

No data available.

**3. Composition/information on ingredients**

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**CHEMICAL IDENTITY**

(1*R*,3*R*,4*R*,7*S*)-7-(2-cyanoethoxy(diisopropylamino)phosphinoxy)-1-(4,4'-dimethoxytrityloxymethyl)-3-(2-*N*-dimethylformamidino-guanin-9-yl)-2,5-dioxabicyclo[2.2.1]heptane

**COMMON NAME, SYNONYMS, ETC.**

LNA-G(dmf)

**CAS NUMBER AND OTHER UNIQUE IDENTIFIERS**

CAS number: 206055-77-8

EC number: Not available.

**IMPURITIES AND STABILIZING ADDITIVES WHICH ARE THEMSELVES CLASSIFIED**

None known.

**4. First aid measures**

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**DESCRIPTION OF NECESSARY MEASURES****If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Obtain medical attention.

**In case of skin contact**

Remove any contaminated clothing. Wash off with soap and plenty of water. Obtain medical attention.

**In case of eye contact**

Flush eyes copiously with water for at least 15 minutes. Use a sterile eye wash if available. Obtain medical attention.



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## **If swallowed**

Keep person calm and immobile. Rinse mouth with water if conscious. Never give anything by mouth to an unconscious person. Obtain medical attention.

## **MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY**

No data available.

## **5. Fire-fighting measures**

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### **SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **SPECIFIC HAZARDS ARISING FROM THE CHEMICAL (E.G. NATURE OF ANY HAZARDOUS COMBUSTION PRODUCTS)**

Possibility of carbon oxides, nitrogen oxides (NO<sub>x</sub>), or oxides of phosphorus on combustion.

### **SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS**

Wear mask and protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus if necessary.

## **6. Accidental release measures**

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### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Wear protective clothing, respirator, chemical safety goggles, rubber gloves and rubber boots. Avoid dust formation. Avoid breathing dust, vapours, mist or gas.

### **ENVIRONMENTAL PRECAUTIONS**

Prevent product from entering drains.

### **METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

Clean the contaminated area thoroughly with a suitable solvent and absorbent material taking care to avoid breathing fumes. Contain spills using adsorbent barriers where available. Dispose of all cleaning materials with care (see section 13), where possible containing in sealed containers for appropriate disposal.



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## 7. Handling and storage

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### PRECAUTIONS FOR SAFE HANDLING

Handle with due care and attention. Do not eat, drink or smoke when using this product. In addition to instructions in section 8, wash hands after use and remove any contaminated clothing and protective equipment before entering eating areas.

### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Containers should be kept sealed and safely stored when not in use. Store in a freezer at -20°C.

## 8. Exposure controls/personal protection

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### CONTROL PARAMETERS (OCCUPATIONAL EXPOSURE LIMIT VALUES OR BIOLOGICAL LIMIT VALUES)

Contains no substances with occupational exposure limit values.

### APPROPRIATE ENGINEERING CONTROLS

General industrial laboratory hygiene practice. Use product within air-extracted fume hood where possible.

### INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

#### Eyeface protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Body Protection

A laboratory coat must be worn. Arms, legs and feet should be covered with suitable clothing and shoes.

#### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. Physical and chemical properties

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Appearance (physical state, colour etc.):	White free flowing homogeneous solid
Odour:	No data available
Odour threshold:	No data available



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pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Solubility(ies):	Acetonitrile
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Empirical formula:	C <sub>44</sub> H <sub>53</sub> N <sub>8</sub> O <sub>8</sub> P
Molecular weight (g/mol):	852.93

## 10. Stability and reactivity

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### REACTIVITY

No data available.

### CHEMICAL STABILITY

Stable.

### POSSIBILITY OF HAZARDOUS REACTIONS

No data available.

### CONDITIONS TO AVOID (E.G. STATIC DISCHARGE, SHOCK OR VIBRATION)

No data available.

### INCOMPATIBLE MATERIALS

Oxidising agents, reducing agents, bases, strong acids.

### HAZARDOUS DECOMPOSITION PRODUCTS

Possibility of carbon oxides, nitrogen oxides (NO<sub>x</sub>), or oxides of phosphorus on combustion.



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## 11. Toxicological information

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### TOXIC EFFECTS

Acute toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

### INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

Exposure via inhalation, ingestion, skin and eye contact - data on the health effects of such exposure is not available.

### SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

No data available. To the best of our knowledge the chemical, physical and toxicological properties of this substance have not been investigated. Handle with care to avoid all unnecessary exposure and release into the atmosphere. If you feel unwell after using this product then immediately seek medical attention.

### DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE

No data available.

### NUMERICAL MEASURES OF TOXICITY (SUCH AS ACUTE TOXICITY ESTIMATES)

No data available.

## 12. Ecological information

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### TOXICITY

No data available.

### PERSISTENCE AND DEGRADABILITY

No data available.

### BIOACCUMULATIVE POTENTIAL

No data available.



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## MOBILITY IN THE SOIL

No data available.

## OTHER ADVERSE EFFECTS

No data available.

## 13. Disposal Considerations

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### DISPOSAL METHODS

For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in section 8 of the SDS. Dispose by incineration at high temperature in an approved incinerator fitted with appropriate environmental protection equipment. Contaminated packaging should be treated as product. Dispose of in accordance with all applicable Local, National, State and Federal regulations. Labels should not be removed from containers until they have been thoroughly cleaned in an appropriate manner. Containers should not be treated as domestic waste and disposed of appropriately. Always use an approved disposal company. Do not dispose to drains.

## 14. Transport information

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### UN number

Not applicable

### UN proper shipping name

Not dangerous goods

### Transport hazard class(es)

Not applicable

### Packing group

Not applicable

### Environmental hazards

IMDG Marine Pollutant: No

ADR: Non-hazardous by road

RID: Non-hazardous by rail

ADN: Non-hazardous by inland water-ways

IATA: Non-hazardous by air

### Special precautions for the user

Not applicable.

### Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Non-hazardous by sea.



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## 15. Regulatory information

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This safety datasheet complies with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fourth revised edition, 2011.

No further safety, health and environmental regulations specific for the product in question are available.

## 16. Other information

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Approved: 01 Nov 2019

Last Revision Date: No revisions.

Revision history: No revisions.

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