

## SECTION 1

## Identification of the substance/mixture and of the company/undertaking

**Catalogue number**

P004S, P004M, P004L

**Product name**

SynPhusion Gold DNA Polymerase Master Mix

**Pure substance/mixture**

Mixture

**Chemical names, common names**

Not applicable

**Unique Formula Identifier (UFI number)**

Not applicable

**Recommended use**

Research use

**Uses advised against**

Consumer use

**Details of the supplier of the safety data sheet**

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Mátyás király utca 46.  
[info@synthbioenzymes.com](mailto:info@synthbioenzymes.com)

**Emergency details:**

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## SECTION 2

## Hazard identification

**Classification of the substance or mixture**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008

**Label elements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008

**Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008

**Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3

## Composition / Information of Ingredients

**Substances**

Irrelevant

**Mixtures**

We recommend handling all chemicals with caution. Mixture of the substances listed below with nonhazardous additions.

	Content (%)	REACH number	CAS number/EC number	Classification
Nucleotidyltransferase, deoxyribonucleate	1-10	-	9012-90-2/ 232-741-2	Biological Constituent SDS data N/A
Secret trade 1	<0,1	-		
Secret trade 2	<0,1	-		

The main component is water. The other components of the mixture are a reaction buffer with nonhazardous elements and other minor ingredients.

## SECTION 4

## First aid measures

**General information**

Water is the main component of this solution. This mixture is not hazardous, thus no special measures required.

**Description of first aid measures**
**Inhalation**

Move exposed person to fresh air. If not breathing, give artificial respiration. Get medical attention immediately if symptoms occur.

**Skin contact**

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation persists.

**Eye contact**

Check for and remove contact lenses if present. Rinse opened eye immediately with plenty of water, also wash under the eyelids, for several minutes. Seek medical advice if irritation occurs.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention if symptoms occur.

**Notes to Physician**

Treat symptomatically. Show this safety data sheet to the doctor in attendance.

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

None reasonably foreseeable. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chestpain, muscle pain or flushing.

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

None needed. Treat symptomatically.

**Special note regarding Biological Constituents**

The Biological Constituents of this product are known to be non-infectious and non-hazardous. When this product is used in conjunction with bodily fluids universal precautions should be implemented.

**Exposure limits**

No compounds in this product have defined exposure limits.

**SECTION 5**
**Firefighting measures**
**Extinguishing media**

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment: e.g. water spray, carbon dioxide (CO<sub>2</sub>), dry chemical powder, alcohol resistant foam.

Unsuitable extinguishing media

None known.

**Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Sodium oxides, Combustible.

**Advice for firefighters**

Standard procedure for chemical fires. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Fight fire with normal precautions from a reasonable distance. Use personal protection equipment.

**SECTION 6**
**Accidental release measures**
**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required. Wear a lab coat to prevent spills from damaging clothing. See Section 8 for more information on personal protective equipment.

**Environmental precautions**

Should not be released into the environment. Keep away from drains, surface and ground water. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Take up dry. Dispose of properly. Clean up affected area.

**Reference to other sections**

No dangerous substances are released. See Section 7 for information on safe handling and storage, Section 8 for further information on protective clothing and equipment, Section 12 for additional Ecological Information and Section 13 for disposal instructions.

## SECTION 7

### Handling and storage

#### Precautions for safe handling

Wear a lab coat to prevent spills from damaging clothing. Keep closed when not in use. Do not eat, smoke or drink where material is handled, processed or stored. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Handle in accordance with good industrial hygiene and safety practice.

#### Information about protection against explosions and fires

No special measures required.

#### Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry place. Keep away from water or moist air. Keep container tightly closed in a dry and well-ventilated place. Store under an inert atmosphere. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Store at -20 °C.

#### Specific end use(s)

Recommended for research use, not recommended for consumer use.

## SECTION 8

### Exposure controls/personal protection

#### Control parameters

There are no components with limit values that require monitoring at the workplace.

#### Exposure controls

##### Engineering controls

No information available.

##### Eye/face protection

Wear safety glasses with side shields (or goggles) (European standard - EN166).

##### Skin and body protection

Handle with gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Choose proper body protection. Wear a lab coat to prevent spills from damaging clothing.

##### Respiratory protection

No special protective equipment required.

##### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

##### Environmental exposure controls

Keep away from drains, surface and ground water. Discharge into the environment should be avoided.

##### Thermal hazards

No information available.

**Other information**

Do not eat, smoke or drink where material is handled, processed or stored.

**SECTION 9**
**Physical and chemical properties**
**Information on basic physical and chemical properties**

**Physical state:** Colorless liquid, Yellow liquid

**Form:** Fluid

**Colour:** Yellow, Colourless

**Odour:** Odourless

**Odour threshold:** Not determined.

**pH-value:** No data available.

Property	Values	Determination Method
<b>Melting point/Melting range:</b>	No data available.	
<b>Boiling point/Boiling range:</b>	No data available.	
<b>Flash point:</b>	No data available.	
<b>Flammability (solid, gaseous)</b>	No data available.	
<b>Flammability Limit in Air</b>	No data available.	
<b>Ignition temperature:</b>	No data available.	
<b>Decomposition temperature:</b>	No data available.	
<b>Self igniting:</b>	Not determined.	
<b>Danger of explosion:</b>	Product does not present an explosion hazard.	
<b>Explosion limits:</b>	No data available.	
<b>Vapour pressure at 20°C:</b>	Not determined.	
<b>Density:</b>	Not determined.	
<b>Relative density:</b>	No data available.	
<b>Vapour density:</b>	Not determined.	
<b>Evaporation rate:</b>	Not determined.	
<b>Solubility in water:</b>	Readily soluble.	
<b>Solubility in other solvents:</b>	No data available.	
<b>Segregation coefficient (n-octanol/water):</b>	Not determined.	
<b>Viscosity:</b>	Not determined.	
<b>Oxidising properties:</b>	No data available.	
<b>Particle characteristics:</b>	No data available.	

**Other information**

No further relevant information available.

**How to detect this substance**

There are no unusual properties. The product's characteristics are very similar to those for water.

**SECTION 10**
**Stability and Reactivity**
**Reactivity**

No dangerous reaction known under conditions of normal use.

**Chemical stability**

Stable under recommended conditions for use and storage.

**Sensitivity to mechanical impact**

None known.

**Sensitivity to static discharge**

None.

**Possibility of hazardous reactions**

Hazardous reaction has not been reported.

**Conditions to avoid**

Incompatible products. Exposure to moisture. Exposure to moist air or water. Direct sunlight.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulfur oxides.

## SECTION 11

**Toxicological information****Potential Health Effects**

No long-term or immediate health effect from exposure to this product is presently known.

**Acute toxicity**

No information available.

**Serious eye damage/irritation**

No information available.

**Dermal/skin corrosion/irritation**

No information available.

**Inhalation/respiratory**

No information available.

**Oral/ingestion**

No information available.

**Aspiration hazard**

No information available.

**Specific target organ toxicity – single exposure**

No information available.

**Specific target organ toxicity – repeated exposure**

No information available.

**Carcinogenicity**

No information available.

**Reproductive toxicity**

No information available.

**Germ cell mutagenicity**

No information available.

**Information on other hazards****Endocrine disrupting properties**

No information available.

**Other information**

No information available.

## SECTION 12

## Ecological information

**Toxicity**

Contains no substances known to be hazardous to the environment or not degradable in waste water.

**Environmental Fate (Degradation, Transformation, and Persistence)**

Bio-concentration is not expected to occur.

**Persistence and degradability**

The enzyme is biodegradable.

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Result of PBT and vPvB assessment**

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Endocrine disrupting properties**

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Other adverse effects**

Even though the mixture does not contain any substances known to be hazardous to the environment or not degradable in waste water discharge into the environment should be avoided, because there is not enough information from its bioaccumulative potential of mobility in soil.

## SECTION 13

## Disposal considerations

**Waste treatment methods**

Unused product: dispose as a regulated hazardous waste. Spent product or spill cleanup: follow all provincial, local, state, and federal regulations. Do not empty into drains. The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Do not reuse empty containers. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its container, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## SECTION 14

## Transport information

**ADR / IMDG / IATA / RID**

This product is not subject to transport regulations.

**UN Proper shipping name**

Not determined.

**UN number**

Not determined.

**Transport Hazard class**

Not determined.

**Environmental hazards - MP**

Not determined.

**ID number**

Not determined.

**Special precautions for the user**

Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and IBC code**

Not applicable.

**Packing group**

Not regulated.

**Special Provisions**

Not regulated.

**Special precautions for user**

Not applicable.

**Transport/Additional information**

Not dangerous according to the above specifications.

## SECTION 15

**Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****Substances of Very High Concern**

None.

**Substance subject to authorisation per REACH Annex XIV**

None.

**Restricted substances under EC 1907/2006, Annex XVII**

None.

**Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)**

None.

**Regulation (EU) No 2019/1021 (Stockholm Convention – persistent organic pollutants)**

None.

**EU - Substances Depleting the Ozone layer (1005/2009)**

None.

**German Water hazard classes (Wassergefährdungsklassen)**

Not classified.

**Other International Inventories**

No information available.

**Chemical safety assessment**

No chemical safety assessment has been carried out.



## SECTION 16

**Other information**

This safety data sheet complies with the requirements COMMISSION REGULATION (EU) 2020/878.

**Revision note**

This SDS is valid from 01.03.2023.

Contact [info@synthbioenzymes.com](mailto:info@synthbioenzymes.com) for latest revision.

**Abbreviations and acronyms**

°C – Degrees Celsius

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS – Chemical Abstracts Service

EC number – European Community number

EN – European standard

EU – European Union

IATA – International Air Transport Association

IMDG – International Maritime Dangerous Goods

Kow – Octanol-Water Partition Coefficient

PBT - Persistent, Bioaccumulative and Toxic

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail

SDS – Safety Data Sheet

UFI – Unique Formulation Identifier

UN – United Nations

vPvB - Very Persistent and Very Bioaccumulative

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide for safe handling, use, processing, storage, transportation, disposal and release. All materials and mixtures may present unknown hazards and should be used with caution. The information relates only to the specific material and may not be valid for such material used in combination with any other materials or in any process unless expressly specified in the text.

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