

SECTION 1

Identification of the substance/mixture and of the company/undertaking**Catalogue number**

P002S, P002M, P002L

Product name

SynPhusion Gold DNA Polymerase

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

Synthbiotics Kft.
Hungary, 7135 Dunaszentgyörgy,
Mátyás király utca 46.
info@synthbioenzymes.com

Emergency details:

Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
1097 Budapest, Nagyvárad tér 2.
Tel.: +36 1 476 6464, +36 80 201 19
ettsz@okbi.antsz.hu

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 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 (CO₂), 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_x), 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
Melting point/Melting range:	No data available.	
Boiling point/Boiling range:	No data available.	
Flash point:	No data available.	
Flammability (solid, gaseous)	No data available.	
Flammability Limit in Air	No data available.	
Ignition temperature:	No data available.	
Decomposition temperature:	No data available.	
Self igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:	No data available.	
Vapour pressure at 20°C:	Not determined.	
Density:	Not determined.	
Relative density:	No data available.	
Vapour density:	Not determined.	
Evaporation rate:	Not determined.	
Solubility in water:	Readily soluble.	
Solubility in other solvents:	No data available.	
Segregation coefficient (n-octanol/water):	Not determined.	
Viscosity:	Not determined.	
Oxidising properties:	No data available.	
Particle characteristics:	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_x), Carbon monoxide (CO), Carbon dioxide (CO₂), 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 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.

Since Synthbiotics Ltd cannot control the actual methods, volumes, or conditions of use, the company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.