

FastGene® Taq DNA Polymerase

Safety Data Sheet according to Annex II of the Regulation (EC) No. 1907/2006 (REACH), amended by the Regulation (EU) 2015/830 and 2018/675

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1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Name: FastGene® Taq DNA Taq Polymerase
 Cat. No.: LS20, LS21, LS22
 EC Substance name: not available
 CAS Number: 56-81-5
 EC Number: not available
 REACH Reference Number: not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: No further relevant information available
 Application of substance: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Supplier: NIPPON Genetics EUROPE GmbH
 Mariaweilerstraße 28-30
 D- 52349 Düren, Germany
 Phone.: +49 (0) 2421 / 554960
 Fax: +49 (0) 2421 / 5549611
 E-Mail: info@nippongenetics.de
 Internet: www.nippongenetics.eu

Information on further details at: Technical Support
 Phone: +49 (0) 2421 / 554960
 Fax: +49 (0) 2421 / 5549611
 E-Mail: sdb@nippongenetics.de

1.4 Emergency telephone no:

Emergency information: Phone: +49 (0) 2421 / 554960
 Within the business hours: Monday to Friday, 8 a.m. to 5 p.m.

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to the Regulation (EC) No. 1272/2008 (CLP);

The product is not classified according to the CLP regulation

2.2 Labelling elements

Labelling according to the Regulation (EC) No. 1272/2008 (CLP):

Substance on the label: Void

Pictograms: Void

Signal word: Void

H statements: Void

P statements: Void

2.3 Other hazards:

On PBT or vPvB properties of the product or its ingredients according to the criteria of REACH Annex XIII no information is available.

Physical-chemical hazardous effects are unknown. On complains and symptoms as well as to harmful effects no data are available.

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3. Composition / information on ingredients:

3.1 **Substances:** not relevant

3.2 Mixtures:

Chemical characterization:

Mixture of substances listed below with nonhazardous additions.

Chemical name	Index No.	CAS No.	Content	Classification
Glycerol	not available	56-81-5	40 ~ 60%	no relevance

The wordings of the H statements are listed in section 16.

4. First aid measures

4.1 Description of the first aid measures:

4.1.1 General information:



Take affected persons out into the fresh air.
Do not leave affected persons unattended.

4.1.2 Inhalation:

Remove the affected person to fresh air, bring to rest position, keep warm. If complains and symptoms occur seek medical advice.

4.1.3 Skin contact:

At contact with the skin immediately wash with much water. If complains and symptoms occur seek medical advice.

4.1.4 Eyes contact:



Thoroughly wash the eyes on spread lids with flowing fresh water for 20 minutes, previously remove contact lenses if possible. Provide ophthalmological treatment. Call a doctor immediately.

4.1.5 Ingestion:

Do not induce vomiting. Let rinse the mouth, let spit of the liquid and let drink copious amounts of water. If complains and symptoms occur seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed:

Not relevant

4.3 Indication of any immediate medical attention and special treatment needed:

Do not inject adrenalin.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:



The product is not combustible, adapt the measures to the environment: water spray, carbon dioxide, extinguishing foam and dry extinguishing agent.

Not suitable extinguishing media for safety reasons:

Water with full jet

5.2 Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

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5.3 Advice for fire fighters:

Mouth respiratory protective device. Do not inhale explosion gases or combustion gases.



6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Mind the protection measures (section 8). Avoid the contact with skin, eyes and cloth, wear suitable protection equipment. Ensure adequate ventilation. Avoid aerosol formation.

6.2 Environmental precautions:

Do not allow to enter sewers / surface waters / ground water. Remove fire residues and contaminated aqueous wastes in suitable containers and dispose of them in a controlled manner.

6.3 Methods and material for containment and cleaning up:

Take up with liquid-binding agents, e.g. universal binder, treat material as described in section 13 „Disposal considerations“. Clean contaminated surfaces with water. Ensure adequate ventilation.

6.4 Reference to other sections:

See section 7 for information on safe handling. Refer to section 8 – personal protection and section 13 – information on disposal.

7. Handling and storage

7.1 Precautions for safe handling:

7.1.1 Information on safe use:

Ensure good ventilation/exhaustion at the workplace. Store in cool, dry place in tightly closed receptacles.

7.1.2 Information on fire and explosion protection:

Keep ignition sources away – Do not smoke.

7.1.3 Handling rules:

On workplaces only keep available amounts necessary for work progress. Don't leave receptacles stand open. Avoid spilling, preferable handle with non-breakable receptacles or use suitable protection containers on transportation of breakable receptacles.

7.2 Conditions for safe storage considering incompatibilities:

7.2.1 Technical measures and storage conditions:

Keep opened container tightly closed again and stored upright to prevent leakage. Always keep in containers of the same material as the original. Storage temperature 4 ° C recommended. Keep away from sunlight.

7.2.2 Packing materials:

Packing materials must be tested for durability before use.

7.2.3 Requirements for storage rooms and containers:

Storage in passages, stairs, public areas, roofs and workrooms is not permitted. Do not use food containers because of the risk of confusion. Label containers clearly and permanently. If possible, keep in the original container, keep container tightly closed.

7.2.4 Information on cumulative storage:

Storage class: non-combustible corrosive substances.

Nothing but substances of similar properties should be cumulatively stored. Cumulative storage with substances as follows is prohibited:

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- Pharmaceuticals, food and feed, including additives.
- Infectious, radioactive and explosive substances.
- Organic peroxides, self-reactive and very reactive oxidizing substances.

7.2.5 Further information to the storage conditions: Keep container tightly sealed.

7.3 Specific end uses: none

8. Exposure controls / personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Chemical name	EC No.	CAS No.	Exposure limit type / source	Long-term limit value (8h)	Short-term limit value (15 min)
Glycerol	200-289-5	56-81-5	Workplace exposure limit (WEL) / Guidance note EH40 – Occupational Exposure Limits / United Kingdom	10 mg/m ³	not available

8.1.2 Biological exposure limits: not available

8.1.3 DNEL and PNEC values: not available

Reference: For the assessment of the own risk assessment measures (RMM) with the charge-free tool **ECETOC TRAM** or with another method possibly a scaling for the proof of the safe use should be performed. Existing DNEL/PNEC values also may be extrapolated based at the concentrations from section 3. If an exposure scenario should be completely applicable, this shall be documented.

8.2 Exposure controls:

8.2.1 Personal protection:

Respiratory protection:



No respiratory protection is necessary when working with the small quantities intended for the product.

Hand protection:



At the risk of skin contact with the product, ensure adequate protection by wearing suitable protective gloves, e.g. according to EN 374. Before use, test protective gloves for suitability under the specific working conditions (e.g., mechanical resistance, product compatibility and antistatic properties). Observe the instruction and information on the use, storage, maintenance and replacement of protective gloves. Damaged and worn protective gloves should be replaced immediately. Nitrile rubber, NBR. Recommended thickness of the material ≥ 0.35 mm. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye protection:



Eye protection goggles with side protection (EN 166).

Skin protection



Use clothing usual in the chemical industry. Skin protection agents are not as effective as protective gloves, so they should be preferred as much as possible. If no protective gloves can be worn, apply water-insoluble skin protection preparations to the clean skin before starting work and after every break. Before breaks and at the end of work, skin cleansing with soap and water is required. After cleansing, use a greasy skin care product.

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Body protection:



Special body protection generally not required; normal work clothes adequate.

General protection and hygiene measure:



The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove all soiled and contaminated clothing. Do not inhale gases / fumes / aerosols. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

8.2.2 Limitation of the environmental exposure:

Avoid leaks and spills.

8.2.3 Limitation of the consumer's exposure:

Avoid inhalation of vapors, mists or gases, remove sources of ignition.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

9.1.1 Appearance:

Physical status:	liquid
Color:	clear
Odor:	odorless

9.1.2 Fundamental data relevant for security:

pH-value:	neutral
Change in condition:	
Melting point/freezing point:	0°C
Initial boiling point and boiling range:	171°C
Flash point:	160°C ((c.c.))
Flammability (solid, gas):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto-ignition temperature:	370 °C.
Explosive properties:	Product does not present and explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour density:	3.1 (air=1).
Density:	Not determined.
Relative density:	Not determined.
Maximum/minimum evaporation rate:	19 / 2.7 %.
Solubility in / Miscibility with water:	1000 g/L at 25°C; solvent solubility: alcohol, ethyl acetate, ether insolubility, benzene, chloroform, carbon tetrachloride, carbon disulfide, oil ether, oil
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	954 cP (at 25 °C)
Dynamic:	Not applicable.
Kinematic:	Not applicable.

9.2 Other information: Molecular weight: 92.09

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10. Stability and Reactivity

10.1 Reactivity:

Not reactive under the intended use and storage conditions.

10.2 Chemical stability:

Chemically stable under the intended use and storage conditions.

10.3 Possibility of hazardous reactions:

No reaction under the intended use and storage conditions.

10.4 Conditions to avoid:

No further relevant information available.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous decomposition products

At high temperature carbon monoxide, carbon dioxide, organic decomposition products.

11. Toxicological information

11.1 Information on toxicological effects:

11.1.1 Toxicocinetics, metabolism and distribution:

No data available.

11.1.2 Acute toxicity:

Glycerin: LD50 27200 mg/kg Rat (Oral)

Glycerin: LD50 > 10000 mg/kg Rat (Ingestion)

11.1.3 Corrosive and irritation effects:

Based on available data, the classification criteria are not met.

11.1.4 Sensitizing effects:

Based on available data, the classification criteria are not met.

11.1.5 Subacute and chronic toxicity:

Based on available data, the classification criteria are not met.

11.1.6 Carcinogenicity, mutagenicity and reproduction toxicity:

Based on available data, the classification criteria are not met.

11.1.7 Experience from practise:

Based on available data, the classification criteria are not met.

11.1.8 General remarks:

When handled appropriate and used as intended, the product does not cause harmful effects according to our experience and current information.

12. Ecological information

12.1 Toxicity: [Glycerin]

Fish: LC50 5000 mg/l 24h *Carassius auratus*

Crustacean: EC50 > 10000 mg/l 24 h *Daphnia magna*

Algae: LC50 77712.039 mg/L (96 h)

12.2 Persistence and degradability:

Biological degradation:

63% 14 day Fast biodegradability (OECD SIDS)

93% degradability 30 days (OECD TG 301D) (IUCLID)

Abiotic degradation:

No data available.

12.3 Bio-accumulation potential:

No data available.

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12.4 Mobility in soil:

Absorption/Desorption: No data available.

12.5 Volatility: No data available.

12.6 Results of the PBT and vPvB assessment:

On PBT or vPvB properties of the product or its ingredients according to the criteria of REACH Annex XIII no information is available.

12.7 Other adverse effects:

Ozone depletion potential and global green-house effects are not known.

General remarks:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water courses or sewage system.

13. Disposal considerations

13.1 Waste treatment methods:

13.1.1 Product:

The allocation of a waste code number according to the European waste catalog should be done in consultation with the regional waste disposal company.

13.1.2 Packaging:

Residues in packages should be removed, preferably by rinsing with water, and after complete emptying in accordance with the regulations for waste disposal. Packaging which is not completely emptied must be disposed of in the form as determined by the regional waste disposal company.

14. Transport information

14.1 UN number: Void

14.2 UN proper shipping name: Void

14.3 Transport hazard class(es): Void **Hazard label:** Void

14.4 Packaging group: Void **Hazard number:** Void

14.5 Environmental hazards: No **Marine Pollutant:** No

14.6 Special precautions for user: Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not relevant

15. Regulatory information

Directive 2012/18/EU

Named dangerous substances – ANNEX I None of the ingredient is listed.

15.1 Chemical safety assessment:

Chemical safety assessments (CSA) according to the Article 14 Paragraph 1 of the Regulation (EC) No 1907/2006 (REACH) are not available.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not established a legally valid contractual relationship.

16.1 Wordings of the H-statements from the sections 2 and 3:

Not relevant.

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16.2 Training advice:

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.

16.3 Abbreviation /Explanation:

ADR:	Accord européen sur le transport des marchandises dangereux par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
GHS:	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
CAS:	Chemical Abstracts Service (Division of the American Chemical Society)
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	very Persistent and very Bioaccumulative

16.4 Recommended use restriction:

Not recommended for consumer's use.

16.5 Amended information and reason for amendment:

Prior version:	Version number	1.1	Date:	23.11.2015
Actual version:	Version number	1.2	Datum:	06.05.2020
Kind of amendment:	Actualization			
Reason for amendment:	New address			

16.6 Remarks:

This information is only intended to describe the safety requirements of the product and is based on the present state of our knowledge. They do not constitute a guarantee for the characteristics of the product described in the sense of the statutory warranty regulations. Please refer to the respective product data sheets for the delivery properties. If the product mentioned in this Material Safety Data Sheet is blended, mixed or processed with other materials, the data in this Material Safety Data Sheet may not be transferred to the new material, unless otherwise specified.

End of MSDS