Safety data sheet

EcoTech Purified Plasmid DNA

Product name EcoTech Purified Plasmid DNA	Catalog no. PL0001-PL0099
Synonyms Plasmid DNA; recombinant plasmid DNA	Source SDS revision -
CAS no. -	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	EcoTech Purified Plasmid DNA
Product code	PL0001-PL0009; PL0010-PL0099
CAS number	-
EC number	-
Recommended use	For research use only: cloning, gene expression, sequencing and molecular biology. Not for diagnostic, therapeutic or human administration. Applies to purified, noninfectious plasmid DNA in non-hazardous aqueous solution only.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. Ipekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10 Yakutiye Erzurum Turkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
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Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Not classified as a hazardous chemical under Regulation (EC) No. 1272/2008 (CLP) for the defined non-hazardous aqueous DNA preparation.
Label elements	No GHS label elements required for the defined product form.
Symbols / pictograms	None
Signal word	None
Hazard statements	None for the defined product form.
Precautionary statements - Prevention	Use standard laboratory PPE. Avoid contact with eyes and skin. Observe laboratory biosafety procedures.
Precautionary statements - Response	If exposed: rinse affected area with water; seek medical advice if symptoms occur.
Other hazards	Sequence, insert, host and intended use may introduce biological risks not covered by chemical classification. Excludes viable microorganisms, viral particles and hazardous additives.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	EcoTech Purified Plasmid DNA
Synonyms	Plasmid DNA; circular double-stranded DNA; recombinant DNA
Concentration	Product-dependent; purified DNA in aqueous solution
Formula	Sequence-dependent (DNA polymer)
Molecular weight	Variable; determined by plasmid size and sequence
Mixture / scope statement	Purified plasmid DNA in aqueous carrier. DNA (general CAS 9007-49-2); aqueous carrier composition may vary. No live cells, infectious particles or independently hazardous additives are covered by this SDS.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if easy. Seek medical advice if irritation persists.
Skin contact	Wash affected skin with soap and water. Remove contaminated clothing if necessary. Seek medical advice if irritation develops.
Inhalation	Move to fresh air if aerosol or mist causes discomfort. Seek medical advice if symptoms persist.
Ingestion	Rinse mouth; do not induce vomiting. Obtain medical advice if unwell.
Self-protection of first aider	Wear suitable laboratory gloves and eye protection; avoid contact with potentially contaminated material.
Most important symptoms / effects	Significant acute effects are not expected from normal use of the defined purified DNA solution; irritation is possible.
Notes to physicians	Treat symptomatically. Evaluate separately any unusual additives or sequence-related biological exposures.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Use extinguishing media appropriate for the surrounding fire: water spray, foam, CO2 or dry chemical.
Unsuitable extinguishing media	No specific restriction identified for this dilute aqueous product.
Special hazards arising from the substance or mixture	Aqueous solution is not expected to be flammable. Thermal decomposition of organic material may produce irritating smoke.
Explosion data	No specific explosion hazard is expected for the aqueous preparation.
Advice for firefighters	Wear standard protective equipment and self-contained breathing apparatus when necessary for surrounding fire.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Restrict access as needed. Wear laboratory coat, gloves and eye protection. Avoid splashes and aerosol generation.
Environmental precautions	Prevent release into drains or the environment. Consider sequence- and host-specific biosafety requirements.
Methods and materials for containment and cleaning up	Absorb small liquid spills with suitable inert material. Transfer to an appropriate waste container and clean the surface.
Reference to other sections	See Section 8 for protection and Section 13 for disposal.

07 HANDLING AND STORAGE

Precautions for safe handling	Use good laboratory practice. Avoid contact, ingestion and aerosols. Review vector, insert and host risks before cloning or transfection.
Conditions for safe storage	Keep sealed and clearly labelled; store at -20 C unless otherwise indicated on the product label. Minimize repeated freeze-thaw cycles.
Container labeling	Retain catalog and lot identification. Label products containing recombinant DNA according to institutional biosafety procedures.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No product-specific occupational exposure limits have been established for purified plasmid DNA.

8.2 Exposure controls

Engineering measures	General laboratory ventilation is adequate for routine handling. Use additional containment where the construct or downstream procedure requires it.
Hygiene measures	Do not eat, drink or smoke. Wash hands after handling. Disinfect work areas as required by laboratory biosafety procedures.
Eye / face protection	Wear safety glasses; use splash goggles where liquid splashes are possible.
Hand protection	Wear suitable disposable gloves (e.g. nitrile). Replace if contaminated or damaged.
Skin and body protection	Wear laboratory coat and closed footwear. Additional protective clothing depends on the risk assessment.
Respiratory protection	Not normally required for small volumes of aqueous plasmid DNA. Prevent aerosols; use appropriate protection if warranted by the procedure.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid; clear, colorless aqueous solution
Odor	Odorless or no characteristic odor
Odor threshold	No data available
pH	No data available (buffer-dependent)
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	Not applicable to the aqueous preparation under normal laboratory conditions
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable (aqueous solution)
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)	DNA is dispersed/dissolved in the aqueous carrier
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No explosive properties expected for this aqueous solution
Oxidizing properties	No oxidizing properties expected for this aqueous solution

10 STABILITY AND REACTIVITY

Reactivity	No hazardous chemical reactivity expected during normal handling.
Chemical stability	Generally stable under recommended frozen storage conditions.
Possibility of hazardous reactions	Hazardous chemical reactions are not expected during normal use.
Conditions to avoid	Excess heat, repeated freeze-thaw cycles and nuclease contamination.
Incompatible materials	No data available; avoid strong oxidizers and incompatible laboratory reagents.
Hazardous decomposition products	No specific decomposition data available.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	No acute toxicity classification established for the defined purified DNA solution; product-specific data are not available.
Skin corrosion / irritation	Not classified. Prolonged or repeated exposure may cause minor irritation.
Serious eye damage / eye irritation	Not classified. Direct contact may cause transient irritation.
Carcinogenicity	No product-specific data available.
Reproductive toxicity	No product-specific data available.
STOT - SE	No product-specific data available for single exposure.
STOT - RE	No product-specific data available for repeated exposure.
Aspiration hazard	Not expected to present an aspiration hazard as a dilute aqueous preparation.

11.2 Potential health effects

Ingestion: No significant effects expected in normal laboratory quantities; avoid ingestion.
Inhalation: Aerosols or mists may cause discomfort.
Skin: Transient irritation may occur following prolonged contact.
Eyes: Mechanical or transient irritation may occur.

11.3 Additional information

Biological risk depends on the plasmid sequence, expressed product, host and subsequent procedures. Evaluate recombinant DNA use separately.

12 ECOLOGICAL INFORMATION

Ecotoxicity	No product-specific aquatic toxicity data available. Do not release recombinant DNA preparations into drains or the environment.
Persistence and degradability	No product-specific degradation studies available.
Bioaccumulative potential	No data available; expected to be limited for naked DNA, depending on conditions.
Mobility in soil	May disperse in water. Other transport or mobility data are not available.
Results of PBT and vPvB assessment	No product-specific PBT or vPvB assessment available.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Collect unused plasmid DNA and residues as laboratory waste. Follow institutional recombinant-DNA procedures and applicable local waste rules; do not pour into drains.
Contaminated packaging	Dispose of containers as laboratory waste. If contaminated with cells or infectious material, use the appropriate biological-waste route.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not regulated as dangerous goods	-	-	No
IMDG	-	Not regulated as dangerous goods	-	-	No
IATA	-	Not regulated as dangerous goods	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	The defined non-hazardous aqueous DNA solution is not classified as a hazardous chemical under Regulation (EC) No. 1272/2008 (CLP). Recombinant-DNA use is subject to applicable institutional and national biosafety requirements.
Environmental hazards	Not classified as environmentally hazardous for transport in the defined purified, noninfectious formulation.
Chemical safety assessment	A product-specific chemical safety assessment has not been conducted.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail