Hazard Overview

Version 9.4
Revision Date 05/21/2026
Print Date 05/22/2026

SECTION 1. IDENTIFICATION

1.1 Product identifiers

Product name : GenElute™ Direct mRNA Miniprep Kits

Product Number : DMN10
Brand : Sigma

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765
Fax : +1 800 325-5052

1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

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SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards for the product as supplied

Corrosive to metals : Category 1

Skin irritation : Category 2

Eye irritation : Category 2A

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Respiratory sensitisation	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

Other hazards

None known.

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :
H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

Precautionary statements :

Prevention:

P234 Keep only in original packaging.
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ 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.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P390 Absorb spillage to prevent material damage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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P405 Store locked up.
P406 Store in a corrosion resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Please refer to component Safety Data Sheet and/or to Section 16 Kit components

SECTION 4. FIRST AID MEASURES

Refer to component SDS

SECTION 5. FIREFIGHTING MEASURES

Refer to component SDS

SECTION 6. ACCIDENTAL RELEASE MEASURES

Refer to component SDS

SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

Advice on safe handling	:	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Conditions for safe storage	:	Keep tightly closed in a dry, cool and well-ventilated place. Store in cool place. No metal containers.
Further information on storage conditions	:	Tightly closed. Keep locked up or in an area accessible only to qualified or authorised persons.
Storage class	:	10, Combustible liquids
Recommended storage temperature	:	59 - 77 °F / 15 - 25 °C

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Refer to component SDS

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to component SDS

SECTION 10. STABILITY AND REACTIVITY

Refer to component SDS

SECTION 11. TOXICOLOGICAL INFORMATION

Refer to component SDS

SECTION 12. ECOLOGICAL INFORMATION

Refer to component SDS

SECTION 13. DISPOSAL CONSIDERATIONS

Refer to component SDS

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

National Regulations

49 CFR
Not regulated as a dangerous good
Poison Inhalation Hazard : No

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
Elution solution	7732-18-5	
Lysis Solution	Not Assigned	
Sodium chloride	7647-14-5	
Proteinase K, from *Tritirachium album*	39450-01-6	
Glycerol solution	Not Assigned	
Oligo(dT)-Cellulose	Not Assigned	

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Warning: Manufactured with Elution solution, Sodium chloride, Proteinase K, from *Tritirachium album*, Glycerol solution, Oligo(dT)-Cellulose, Lysis Solution, a substance which harms public health and environment by destroying ozone in the upper atmosphere.

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I SubstancesOzone-Depletion Potential : 7732-18-5

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I SubstancesOzone-Depletion Potential : 7647-14-5

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This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

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Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

This product contains the following priority pollutants related to the U.S. Clean Water Act:

Proteinase K, from *Tritirachium album*	39450-01-6	>= 90 - <= 100 %
Sodium chloride	7647-14-5	>= 90 - <= 100 %
Oligo(dT)-Cellulose	Not Assigned	>= 90 - <= 100 %
Elution solution	7732-18-5	>= 90 - <= 100 %
Lysis Solution	Not Assigned	>= 90 - <= 100 %
Glycerol solution	Not Assigned	>= 90 - <= 100 %

US State Regulations

Massachusetts Right To Know

Proteinase K, from *Tritirachium album*	39450-01-6
Sodium chloride	7647-14-5
Oligo(dT)-Cellulose	Not Assigned
Elution solution	7732-18-5
Lysis Solution	Not Assigned
Glycerol solution	Not Assigned

Pennsylvania Right To Know

Glycerol solution	Not Assigned

Maine Chemicals of High Concern

Proteinase K, from *Tritirachium album*	39450-01-6
Sodium chloride	7647-14-5

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Oligo(dT)-Cellulose	Not Assigned
Elution solution	7732-18-5
Lysis Solution	Not Assigned
Glycerol solution	Not Assigned

Vermont Chemicals of High Concern

Elution solution	7732-18-5
Lysis Solution	Not Assigned
Sodium chloride	7647-14-5
Proteinase K, from *Tritirachium album*	39450-01-6
Glycerol solution	Not Assigned
Oligo(dT)-Cellulose	Not Assigned

Washington Chemicals of High Concern

Elution solution	7732-18-5
Lysis Solution	Not Assigned
Sodium chloride	7647-14-5
Proteinase K, from *Tritirachium album*	39450-01-6
Glycerol solution	Not Assigned
Oligo(dT)-Cellulose	Not Assigned

The components of this product are reported in the following inventories:

US TSCA : Product contains substance(s) not listed on TSCA inventory.

TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:

Elution solution	7732-18-5
Lysis Solution	Not Assigned
Sodium chloride	7647-14-5
Proteinase K, from *Tritirachium album*	39450-01-6
Glycerol solution	Not Assigned
Oligo(dT)-Cellulose	Not Assigned

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

Elution solution	7732-18-5
Lysis Solution	Not Assigned
Sodium chloride	7647-14-5
Proteinase K, from *Tritirachium album*	39450-01-6
Glycerol solution	Not Assigned
Oligo(dT)-Cellulose	Not Assigned

SECTION 16. OTHER INFORMATION

Kit Components:

Elution solution	Sigma	E8024
Sodium chloride	SIGALD	13423
Proteinase K, from	Sigma	P6556

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Tritirachium album		
Glycerol solution	Vetec	V001969
Oligo(dT)-Cellulose	Sigma	O3131
Lysis Solution	Sigma	L2163

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.
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The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

US / EN

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Kit Components:

Elution solution					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - E8024					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

Sodium chloride					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
SIGALD - 13423					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

Proteinase K, from *Tritirachium album*					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - P6556		Danger	Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.	Avoid breathing dust. IF ON SKIN: Wash with plenty of water. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/ container to an approved waste disposal plant. Wash skin thoroughly after handling. IF	

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				INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Store locked up. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ eye protection/ face protection. If skin irritation occurs: Get medical advice/ attention. In case of inadequate ventilation wear respiratory protection. If eye irritation persists: Get medical advice/ attention. If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.	

Glycerol solution					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Vetec -					No hazard pictogram, no

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V001969					signal word, no hazard statement(s), no precautionary statement(s) required.

Oligo(dT)-Cellulose					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - O3131					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

Lysis Solution					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - L2163		Warning	May be corrosive to metals. Causes skin irritation. Causes serious eye irritation.	Keep only in original packaging. IF ON SKIN: Wash with plenty of water. Store in a corrosion resistant container with a resistant inner liner. Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ eye protection/ face protection. If skin irritation occurs: Get	

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				medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage.	

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