

Hazard Overview

Version 8.13
Revision Date 06/30/2026
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SECTION 1. IDENTIFICATION

1.1 Product identifiers

Product name : FragEL™ DNA Fragmentation Detection Kit,
Fluorescent - TdT Enzyme

Product Number : QIA39
Catalogue No. : D55427
Brand : Millipore

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

Identified uses : Laboratory chemicals, Synthesis of substances

Restrictions on use : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

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

Acute toxicity (Oral)	: Category 4
Acute toxicity (Inhalation)	: Category 4
Eye irritation	: Category 2A
Respiratory sensitisation	: Category 1
Carcinogenicity	: Category 1B
Short-term (acute) aquatic hazard	: Category 2
Long-term (chronic) aquatic hazard	: Category 2

Other hazards

None known.

GHS label elements

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H302 + H332 Harmful if swallowed or if inhaled. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H350 May cause cancer. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	:	Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing mist or vapours. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
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.
P308 + P313 IF exposed or concerned: 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.
P391 Collect spillage.

Storage:

P405 Store locked up.

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.

Further information on storage conditions	: Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.
Storage class	: 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects
Recommended storage temperature	: Recommended storage temperature see product label.
Further information on storage stability	: Recommended storage temperature see product label.

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.

SECTION 15. REGULATORY INFORMATION

Clean Air Act

Warning: Manufactured with Proteinase K, TdT Enzyme, 5X TdT Equilibration Buffer, Fluorescent Mounting Media, TdT Labeling Reaction Mix(Fluorescein FragEL), 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

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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):

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %
Fluorescent Mounting Media	Not Assigned	>= 90 - <= 100 %

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

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %
Fluorescent Mounting Media	Not Assigned	>= 90 - <= 100 %

Clean Water Act

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

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %

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

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %

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

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %

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

TdT Enzyme	Not Assigned	>= 90 - <= 100 %
TdT Labeling Reaction	Not Assigned	>= 90 - <= 100 %
Mix(Fluorescein FragEL)		
Proteinase K	Not Assigned	>= 90 - <= 100 %
5X TdT Equilibration Buffer	Not Assigned	>= 90 - <= 100 %

SECTION 16. OTHER INFORMATION

Kit Components:

Proteinase K	Millipore	JA1477
TdT Enzyme	Millipore	JA1560
5X TdT Equilibration Buffer	Millipore	JA1748
Fluorescent Mounting Media	Millipore	JA1750
TdT Labeling Reaction Mix(Fluorescein FragEL)	Millipore	JA1834-1ML

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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Revision Date : 06/30/2026

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

Kit Components:

Proteinase K					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Millipore - JA1477		Danger	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Avoid breathing mist or vapours. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Dispose of contents/ container to an approved waste disposal plant. In case of inadequate ventilation wear respiratory protection. If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.	

TdT Enzyme					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Millipore - JA1560					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

5X TdT Equilibration Buffer					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Millipore - JA1748		Danger	Harmful if swallowed or if inhaled. May cause cancer. Toxic to aquatic life with long lasting effects.	Obtain special instructions before use. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Avoid breathing mist or vapours. IF exposed or concerned: Get medical advice/ attention. Wash skin thoroughly after handling. Collect spillage. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the	

				environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	
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Fluorescent Mounting Media

Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Millipore - JA1750		Warning	Causes serious eye irritation.	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 eye protection/ face protection. If eye irritation persists: Get medical advice/ attention.	

TdT Labeling Reaction Mix(Fluorescein FragEL)

Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Millipore - JA1834-1ML		Danger	May cause cancer. Toxic to aquatic life with long lasting effects.	Obtain special instructions before use. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read	

				and understood. Collect spillage. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.	
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