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MATERIAL SAFETY DATA SHEET

Section 1. Identification of Substance / Preparation:

Topoisomerase IV (*E. coli*) Enzyme/Protein and Supercoiled pN01 DNA in buffer solution and buffers/solutions for use with Topoisomerase IV (*E. coli*) HTS Kits.

Catalogue Numbers: TRIV01 and TRIV02

Section 2: Composition / Information on Ingredients:

Each product package contains an aqueous solution and the volume contained therein varies from 0.02-1ml.

☐ **1)Topoisomerase IV Enzyme** *(E. coli)*, Catalogue Numbers T4001, T4002, T4003 and T4004

Active Ingredient: Topoisomerase IV (*E coli*) Enzyme, CAS: None (EC. 5. 99.1.3)

40% (w/v) Glycerol, CAS: 56-81-5

0.95% (w/v) HEPES-KOH (mix of N-[2-Hydroxyethyl]piperazine-N'-[2-ethanesulfonic acid] and potassium hydroxide), (pH7.6), CAS: 82207-62-3

2% (w/v) Potassium glutamate, CAS: 6382-01-0

0.015% (w/v) Dithiothreitol (DTT), CAS: 3483-12-3

0.03% (w/v) EDTA, CAS: 6381-92-6

☐ **2) Dilution Buffer** Catalogue Number TD002

40% (w/v) Glycerol, CAS: 56-81-5

0.95% (w/v) HEPES.KOH (pH7.6), CAS: 82207-62-3

2% (w/v) Potassium glutamate, CAS: 6382-01-0

0.015% (w/v) Dithiothreitol (DTT), CAS: 3483-12-3

0.03% (w/v) EDTA, CAS: 6381-92-6

☐ **3) Assay Buffer (Supplied X5)** Catalogue Numbers TR001

4.75% (w/v) HEPES-KOH CAS 82207-62-3

0.15% (w/v) Dithiothreitol (DTT), CAS: 3483-12-3

10.0% (w/v) Potassium Glutamate, CAS: 6382-01-0

1.07% (w/v) Magnesium Acetate, CAS: 16674-78-5

0.25% (w/v) Adenosine 5´-triphosphate disodium salt, CAS: 987-65-5

0.025% (w/v) Albumin, CAS: 9048-46-8

☐ **4) Supercoiled pN01 DNA**

CAS #:93384-17-9

0.12% (w/v) Tris-HCl (mix of Tris(hydroxymethyl) aminomethane / hydrochloric acid), CAS 77-86-1

0.03% (w/v) EDTA (Ethylene diamine tetraacetic acid, tetrasodium salt), CAS 6381-92-6

☐ **5) Wash Buffer (Supplied X20)**

5.0% (w/v) Tris-HCl (pH7.6), CAS 77-86-1

16.0% (w/v) Sodium chloride, Cas: 7647-14-5

0.1 % (w/v) Albumin, CAS:9048-46-8

1.0% (v/v) Tween-20, CAS: 9005-64-5

☐ **6) TF Buffer (Supplied X20)**

8.0% (w/v) Sodium acetate, (pH 5.0) CAS: 204-823-8

	6.0% (w/v) Sodium chloride, Cas: 7647-14-5 20.0% (w/v) Magnesium chloride CAS: 7791-18-6 ☐ **7) T10 Buffer (Supplied X20)** 2.5% (w/v) Tris-HCl, (pH8) CAS 77-86-1 0.6% (w/v) EDTA, CAS: 6381-92-6
Section 3:	Hazards Identification: Ingredients are either not classified as dangerous according to EC Directives, or not considered to be hazardous in the very low quantities/concentrations present.
Section 4:	First Aid Measures: In case of contact with skin, wash immediately with soap and water. In case of contact with eyes, flush with water and seek medical advice if discomfort persists.
Section 5:	Fire Fighting Measures: Extinguishing media: water spray, carbon dioxide, dry chemical powder or foam as required.
Section 6:	Accidental Release Measures: Wear appropriate protective clothing. Absorb onto sand or vermiculite and place in closed container for disposal.
Section 7:	Handling and Storage: No special precautions necessary.
Section 8:	Exposure Controls / Personal Protection: Wear gloves and appropriate protective clothing to avoid contact with skin and eyes.
Section 9:	Physical and Chemical Properties: Aqueous, colourless liquid.
Section 10:	Stability and Reactivity: Stable. Glycerol incompatible with oxidizing agents, halogens, ethylene oxide, nitric acid/sulphuric acid. The possibility of reaction with other substances cannot be excluded.
Section 11:	Toxicological Information: Some constituents may cause skin irritation and eye irritation.
Section 12:	Ecological Information: No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.
Section 13:	Disposal Considerations: Dispose of in accordance with local rules and regulations.
Section 14:	Transport Information: Not subject to transport regulations.
Section 15:	Regulatory Information: Ingredients are either not classified as dangerous according to EC Directives, or not considered to be hazardous in the very low quantities/concentrations present. Caution – products for research use only, substances not fully tested.
Section 16:	Other Information: The above information is believed to be correct but does not purport to be all-inclusive and shall only be used as a guide. Inspiralis Ltd. and it's governors, officers, employees and agents shall not be held liable for any claims brought by third parties due to damage resulting from handling or from contact with the above product.
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