Material Safety Datasheet (MSDS)

T4 Gene 32 Protein (Cat. No. E040)

Part. No.	Component Description
E040-1	T4 Gene 32 Protein
E040-2	10X T4 Gene 32 Protein Reaction Buffer

Applied Biological Materials Inc.
1-3671 Viking Way, Richmond
BC, CANADA, V6V 2J5
www.abmgood.com

Updated: 06/07/2023
Version2.2

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1-3671 Viking Way,
Richmond, BC, CANADA
V6V 2J5

Section 1 – Product and Company Information

Product Name	T4 Gene 32 Protein
Catalogue Number	E040-1
Original Manufacturer	Applied Biological Materials, Inc
Address	#1-3671 Viking Way Richmond BC V6V 2J5 CA
Technical Phone	604-247-2416

Section 2 – Composition/Information on Ingredient

Substance Name	Glycerol
Formula	$C_3H_8O_3$
CAS Number	56-81-5
EEC-No	200-289-5
% by Weight	30-60%
Other Components	Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3 – Hazards Identification

HMIS Classification	• Health Hazard: 2 • Flammability: 0 • Reactivity: 0
NFPA Rating	• Health: 0 • Flammability: 0

	• Reactivity: 0

Section 4 – First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Wash off with soap and plenty of water. Consult a physician if persistent rash develops.
Inhalation	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician if breathing becomes difficult.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical advice immediately.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific Hazards	Emits toxic fumes under fire conditions.

Section 6 – Accidental Release Measures

Personal Precautions	Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. Ensure adequate ventilation.
Methods for Cleaning Up	Wear protective eyewear, gloves and clothing. Keep in suitable closed containers for disposal.

Section 7 – Handling and Storage

Handling	User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
Storage	Suitable: Keep tightly closed. Store at -20°C.

Section 8 – Exposure Controls/ PPE

Engineering Controls	Safety shower and eye bath. Mechanical exhaust required.
Personal Protective Equipment	• Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type

	P1 (EN 143) dust masks. • Hand: Protective gloves. • Eye: Chemical safety goggles.
General Hygiene Measures	Wash thoroughly after handling.

Section 9 – Physical and Chemical Properties

Form	Liquid, viscous.
Odour	Odourless.
Melting Point	18.17 °C
Boiling Temperature (°C)	290 °C
Density	No data available.
Vapour Pressure	0.26 hPa at 100 °C (212 °F) 5.7 hPa at 150 °C(302 °F)
Solubility in Water	miscible
Flash Point	199 °C
Explosion Limits	Upper explosion limit: 19 %(V) at 1013 hPa Lower explosion limit: 2.7 %(V) at 1013 hPa
Ignition Temperature	370 °C

Section 10 – Stability and Reactivity

Stability	• Stability: Stable. • Materials to Avoid: No dangerous reaction known under normal conditions.
Hazardous Decomposition Products	• Hazardous Decomposition Products: None under normal conditions.
Hazardous Polymerization	• Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Route of Exposure	• Skin Contact: May cause skin irritation. • Skin Absorption: May be harmful if absorbed through the skin. • Eye Contact: May cause eye irritation. • Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

	• Ingestion: May be harmful if swallowed.
Signs and Symptoms of Exposure	Prolonged exposure can cause nausea, headache, and vomiting. Chronic effects may target kidneys.

Section 12 – Ecological Information

N/A

Section 13 – Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 – Transportation Information

DOT	• Proper Shipping Name: None • Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.
IATA	• Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 – Regulatory Information

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
- DSL: No
- NDSL: No

Section 16 – Other Information

The information contained in this Material Safety Datasheet is believed to be accurate but it is the responsibility of the user or supplier to determine the applicability of these data to the formulation of necessary safety precautions.

Applied Biological Materials Inc. shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Datasheet.

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Applied Biological Materials Inc.
1-3671 Viking Way,
Richmond, BC, CANADA
V6V 2J5

Section 1 – Product and Company Information

Product Name	10X T4 Gene 32 Protein Reaction Buffer
Catalogue Number	E040-2
Original Manufacturer	Applied Biological Materials, Inc
Address	#1-3671 Viking Way Richmond BC V6V 2J5 CA
Technical Phone	604-247-2416

Section 2 – Composition/Information on Ingredient

Other Components	Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3 – Hazards Identification

HMIS Classification	• Health Hazard: 0 • Flammability: 0 • Reactivity: 0
NFPA Rating	• Health: 0 • Flammability: 0 • Reactivity: 0

Section 4 – First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Wash off with soap and plenty of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing give artificial

	respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific Hazards	No special measures required.

Section 6 – Accidental Release Measures

Personal Precautions	Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. Ensure adequate ventilation.
Methods for Cleaning Up	Wear protective eyewear, gloves and clothing. Keep in suitable closed containers for disposal.

Section 7 – Handling and Storage

Handling	User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
Storage	Suitable: Keep tightly closed. Store at -20°C.

Section 8 – Exposure Controls/ PPE

Engineering Controls	Safety shower and eye bath. Mechanical exhaust required.
Personal Protective Equipment	• Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. • Hand: Protective gloves. • Eye: Chemical safety goggles.
General Hygiene Measures	Wash thoroughly after handling.

Section 9 – Physical and Chemical Properties

Form	Liquid.
Odour	Mild.

Melting Point	No data available.
Boiling Temperature (°C)	No data available.
Density	No data available.
Vapour Pressure	No data available.
Solubility in Water	No data available.
Flash Point	No data available.
Explosion Limits	No data available.
Ignition Temperature	No data available.

Section 10 – Stability and Reactivity

Stability	• Stability: Stable. • Materials to Avoid: No dangerous reaction known under normal conditions.
Hazardous Decomposition Products	• Hazardous Decomposition Products: None under normal conditions.
Hazardous Polymerization	• Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Route of Exposure	• Skin Contact: May cause skin irritation. • Skin Absorption: May be harmful if absorbed through the skin. • Eye Contact: May cause eye irritation. • Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. • Ingestion: May be harmful if swallowed.
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 – Ecological Information

N/A

Section 13 – Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 – Transportation Information

DOT	• Proper Shipping Name: None • Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.
IATA	• Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 – Regulatory Information

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
- DSL: No
- NDSL: No

Section 16 – Other Information

The information contained in this Material Safety Datasheet is believed to be accurate but it is the responsibility of the user or supplier to determine the applicability of these data to the formulation of necessary safety precautions.

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