46117 Landing Parkway, Fremont, CA 94538 U.S.A.
Tel: 1-510-265-1027; Fax: 1-510-265-1352

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SAFETY DATA SHEET

Date: March 10, 2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Go-Go™ Fast DNA Gel Running Buffer, 50X
Catalog Number: 41039-200ML, 41039-500ML, 41039-1L
Unit Size: 200 mL / 500 mL / 1L
Manufacturer/Supplier: Biotium, Inc.
46117 Landing Parkway, Fremont, CA 94538, USA
Phone: 1-510-265-1027, Fax: 1-510-265-1352
Web: http://www.biotium.com

Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use.

2. HAZARDS IDENTIFICATION

GHS classification
Signal word None
Health hazards None
Physical hazards None
Hazard statements None
Precautionary statements None
GHS hazard pictogram None

WHMIS classification None

NFPA Rating
Health hazard: 0
Fire: 0
Reactivity Hazard: 0

Classification according to Regulation (EC) No 1272/2008[CLP] None
Labeling according to Regulation (EC) No 1272/2008[CLP]
Hazard pictogram None
Signal word None
Hazard statements None
Precautionary statements None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	EC No.	Weight %	Classification
Triethanolamine	102-71-6	203-049-8	10-30%	Not classified

4. FIRST- AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.

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If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.
Special protective equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid breathing vapors, mist, or gas. Remove all sources of ignition.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up
Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapor or mist.
Avoid direct contact with substance.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Substance: Triethanolamine
CAS no. 102-71-6

Country	Australia	Austria	Belgium	Canada-Ontario	Canada-Quebec	Denmark	European Union	Finland	France
Limit value,8hours	5 mg/m^3	0.8 ppm 5 mg/m^3 inhalable aerosol	5 mg/m^3	0.5 ppm 3.1 mg/m^3	5 mg/m^3	0.5 ppm 3.1 mg/m^3	--	5 mg/m^3	--
Limit value, short term	--	0.16 ppm 10 mg/m^3 inhalable aerosol	--	--	--	1 ppm 6.2 mg/m^3	--	--	--

Country	Germany (AGS)	Germany (DFG)	Hungary	Ireland	Japan	Netherlands	New Zealand	Norway	Singapore
Limit value,8hours	1 mg/m^3 (1)	1 mg/m^3 (1)	--	5 mg/m^3	--	--	5 mg/m^3	5 mg/m^3	5 mg/m^3
Limit value, short term	1 mg/m^3 (1)(2)	1 mg/m^3 (1)(2)				--	--		

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Country	South Africa	South Korea	Spain	Sweden	Switzerland	United Kingdom	USA-NIOSH	USA-OSHA	USA-ACGIH TLV-TWA
Limit value,8hours	10 mg/m^3	--	5 mg/m^3	0.8 ppm 5 mg/m^3	5 mg/m^3 (1)	--	--	--	5 mg/m^3
Limit value, short term	--	--	--	1.6 ppm 10 mg/m^3	5 mg/m^3 (1)(2)	--	--	--	--

Germany (AGS) (1) Inhalable fraction (2) 15 minutes average value
Germany (DFG) (1) Inhalable fraction (2) 15 minutes average value
Sweden (1) 15 minutes average value
Switzerland (1) Inhalable fraction (2) 15 minutes average value

Personal protective equipment
Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Respiratory protection
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Eye protection
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Go-Go™ Fast DNA Gel Running Buffer, 50X
Appearance	Amber solution
Odor	No data available
Odor threshold	No data available
pH	8.3-8.6
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Water soluble
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 data available
Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available
Conditions to avoid
Heat, flames and sparks.

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Materials to avoid
No data available
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity (Triethanolamine)
LD50 Oral - Rat - male and female - 6,400 mg/kg
(OECD Test Guideline 401) Inhalation: No data available
Acute toxicity estimate Dermal - 2,500 mg/kg
LD50 Dermal - Rabbit - > 2,000 mg/kg
(OECD Test Guideline 402) No data available

Skin corrosion/irritation (Triethanolamine)
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation (Triethanolamine)
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization (Triethanolamine)
Maximization Test - Guinea pig
Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity (Triethanolamine)
Test Type: In vitro mammalian cell gene mutation test (Triethanolamine)
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: sister chromatid exchange assay (Triethanolamine)
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: (ECHA)

Test Type: Mutagenicity (mammal cell test): chromosome aberration. (Triethanolamine)
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: Ames test (Triethanolamine)
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471

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Result: negative

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity No data available
Specific target organ toxicity - single exposure (Globally Harmonized System)
No data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
No data available
Aspiration hazard
No data available
Potential health effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Additional Information
Repeated dose toxicity (Triethanolamine) - Rat - male and female - Oral - 91 Days - NOAEL (No observed adverse effect level) - 1,000 mg/kg

Repeated dose toxicity (Triethanolamine)- Rat - male - Dermal - 90 Days - NOAEL (No observed adverse effect level) - 125 mg/kg

RTECS: KL9275000 (Triethanolamine)
Kidney injury may occur., Dermatitis
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

Toxicity (Triethanolamine)
Toxicity to fish (Triethanolamine) - flow-through test LC50 - Pimephales promelas (fathead minnow) - 11,800 mg/l - 96 h
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates (Triethanolamine) - static test EC50 - Ceriodaphnia dubia (water flea) - 609.88 mg/l - 48 h
Remarks: (ECHA)

Toxicity to algae (Triethanolamine) - static test ErC50 - Desmodesmus subspicatus (green algae) - 216 mg/l - 72 h (DIN 38412)
Remarks: (ECHA)

Toxicity to bacteria (Triethanolamine) - static test IC50 - activated sludge - > 1,000 mg/l - 3 h
(OECD Test Guideline 209)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) (Triethanolamine) - semi-static test
NOEC - Daphnia magna (Water flea) - 16 mg/l - 21 d (OECD Test Guideline 211)

Persistence and degradability (Triethanolamine)
Biodegradability aerobic - Exposure time 5 d
Result: ca.100 % - rapidly biodegradable
Remarks: (ECHA)

Theoretical oxygen demand 2,040 mg/g
Remarks: (IUCLID)

Bioaccumulative potential (Triethanolamine)
Bioaccumulation Cyprinus carpio (Carp) - 6 Weeks at 25 °C - 0.25 mg/l (Triethanolamine)

Bioconcentration factor (BCF): < 3.9 (OECD Test Guideline 305)

Cyprinus carpio (Carp) - 6 Weeks

at 25 °C - 2.5 mg/l (Triethanolamine)

Bioconcentration factor (BCF): < 0.4 (OECD Test Guideline 305)

Mobility in soil No information available
Results of PBT and vPvB assessment No information available
Other adverse effects No information available
Additional information No information available

13. DISPOSAL CONSIDERATIONS

Do not dispose product directly into sewage. Consult local, state, or national regulation for proper disposal.

14. TRANSPORT INFORMATION

IATA, IMDG, DOT (US), TDG Not dangerous goods during transportation
UN number None
UN proper shipping name None
Transport hazard class None
Packing group None
Environmental hazards None
Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code None
Special precaution for user None

15. REGULATION INFORMATION

US Federal Regulations
US Toxic Substances Control Act (TSCA): Not listed
SARA 302: No chemicals were found.
SARA 313: No chemicals were found.
SARA 311/312: No chemicals were found

WHMIS Hazard Class None

16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008
Refer to section 2 and section 3
Prepared by: Regulatory Department
Biotium Inc.

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Revision date (Initials)
Reason for revision N/A

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