

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-116

RNase-DETECT™

Size: 112 Tests



Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/09/2013 Revision date: 05/11/2017 Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Reaction Stop Dye (2X)

Product code : 020R

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue Saint Louis, 63132-1429 - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:vapour) Category 1 H330 Fatal if inhaled

Germ cell mutagenicity Category 2

H341 Suspected of causing genetic defects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : H330 - Fatal if inhaled

H341 - Suspected of causing genetic defects

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately call a poison center or doctor

P320 - Specific treatment is urgent (see supplemental first aid instruction on this label)

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

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Formamide	amide C1 / carbamaldehyde / formamide / formic acid amide / formimidic acid / methanamide / methanoic acid amide	(CAS-No.) 75-12-7	50 - 80	Not classified
ethidium bromide	2,7-diamino-10-ethyl-9-phenylphenanthridium bromide / 2,7-diamino-9-phenyl-10-ethylphenanthridium bromide / 2,7-diamino-9-phenylphenanthridine ethobromide / 3,8-diamino-1-ethyl-6-phenylphenantridinium bromide / 3,8-diamino-5-ethyl-6-phenylphenantridinium bromide / dromilac / ethidium bromide / homidium bromide / Phenanthridinium, 3,8-diamino-5-ethyl-6-phenyl-, bromide / RD 1572	(CAS-No.) 1239-45-8	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Inhalation), H330 Acute Tox. 1 (Inhalation:dust,mist), H330 Muta. 2, H341
diethyl pyrocarbonate	baycovin / DEP(=diethylpyrocarbonate) / DEPC / dicarbonic acid diethyl ester / dicarbonic acid, diethyl ester / diethyl dicarbonate / diethyl ester of pyrocarbonic acid / diethyl oxydiformate / diethyl pyrocarbonic acid / DKD / ethoxyformic acid anhydride / ethoxyformic anhydride / ethyl pyrocarbonate / oxydiformic acid diethyl ester / PIREF / pyrocarbonic acid diethyl ester	(CAS-No.) 1609-47-8	< 0.05	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a physician immediately.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Do not breathe dust/fume/gas/mist/vapors/spray. Only qualified personnel equipped with

suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

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6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Obtain special instructions before use. Do not handle until

all safety precautions have been read and understood. Use only outdoors or in a well-ventilated

area. Do not breathe dust/fume/gas/mist/vapors/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Storage temperature : -20 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Reaction Stop Dye (2X)	
No additional information available	
Formamide (75-12-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	10 ppm
ethidium bromide (1239-45-8)	
No additional information available	
diethyl pyrocarbonate (1609-47-8)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Blue
Odor : None

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Odor threshold	:	No data available
pH	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Fatal if inhaled.

ATE US (vapors)	0.24 mg/l/4h
Formamide (75-12-7)	
LD50 oral rat	5325 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 3000 mg/kg body weight (Rat, Male / female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 21 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation)
ATE US (oral)	5325 mg/kg body weight
ethidium bromide (1239-45-8)	
LD50 oral rat	1503 mg/kg (Rat, Literature study, Oral)
LC50 inhalation rat (mg/l)	0.012 mg/l (4 h, Rat, Literature study, Inhalation (dust))

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ethidium bromide (1239-45-8)		
ATE US (oral)	1503 mg/kg body weight	
ATE US (gases)	10 ppmV/4h	
ATE US (vapors)	0.012 mg/l/4h	
ATE US (dust, mist)	0.012 mg/l/4h	
diethyl pyrocarbonate (1609-47-8)		
LD50 oral rat	850 mg/kg (Rat, Oral)	
ATE US (oral)	500 mg/kg hody weight	

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated

exposure

: Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse

effects in the environment.

Formamide (75-12-7)	
LC50 fish 1	6569 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 500 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	> 500 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

12.2. Persistence and degradability

Formamide (75-12-7)			
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.		
BOD (% of ThOD)	0		
ethidium bromide (1239-45-8)			
Persistence and degradability	Biodegradability in water: no data available.		
diethyl pyrocarbonate (1609-47-8)			
Persistence and degradability	Biodegradability in water: no data available.		

12.3. Bioaccumulative potential

Formamide (75-12-7)				
BCF other aquatic organisms 1	3.16 (BCFWIN, Calculated value)			
Log Pow	-0.82 (Experimental value, Equivalent or similar to OECD 107, 25 °C)			
Bioaccumulative potential	Not bioaccumulative.			
ethidium bromide (1239-45-8)				
Log Pow	-0.38 (Calculated)			
Bioaccumulative potential	Not bioaccumulative.			

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diethyl pyrocarbonate (1609-47-8)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Formamide (75-12-7)			
Surface tension	57.5 mN/m (20 °C)		
Log Koc	0.93 (log Koc, Calculated value)		
Ecology - soil	Highly mobile in soil.		
ethidium bromide (1239-45-8)			
Ecology - soil	No (test)data on mobility of the substance available.		

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Formamide (75-12-7)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

ethidium bromide (1239-45-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

diethyl pyrocarbonate (1609-47-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

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SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/11/2017

Full text of H-phrases:

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H341	Suspected of causing genetic defects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 10/27/2016 Revision date: 05/11/2017 Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : RNA Substrate Tubes

Product code : 053R

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue Saint Louis, 63132-1429 - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
diethyl pyrocarbonate	baycovin / DEP(=diethylpyrocarbonate) / DEPC / dicarbonic acid diethyl ester / dicarbonic acid, diethyl ester / diethyl dicarbonate / diethyl ester of pyrocarbonic acid / diethyl oxydiformate / diethyl pyrocarbonic acid / DKD / ethoxyformic acid anhydride / ethoxyformic anhydride / ethyl pyrocarbonate / oxydiformic acid diethyl ester / PIREF / pyrocarbonic acid diethyl ester	(CAS-No.) 1609-47-8	< 0.05	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
1,4-dithiothreitol, DL-	(R*,R*)-(+/-)-1,4-dimercapto-2,3-butanediol / (R*,R*)-(+/-)-1,4-dimercaptobutane-2,3-diol / 1,4-dimercapto-2,3-butanediol, (R*,R*)-(+/-)- / 1,4-dimercapto-2,3-butanediol, (R*,R*)-(+/-)- / 2,3-butanediol, 1,4-dimercapto-, (R*,R*)-(+/-)- / 2,3-butanediol, 1,4-dimercapto-, DL-/dithiothreitol, DL- / DL-1,4-dithiothreitol / DL-DL-1,4-dithiothreitol / DL-DTT (=dithiothreitol) / DL-threo-1,4-dimercapto-2,3-butanediol / DTT (=dithiothreitol), DL- / rac-dithiothreitol / threitol, 1,4-dithio-, DL-/ threo-1,4-dimercapto-2,3-butanediol, DL-/ bL-/ threo-1,4-dimercapto-2,3-butanediol, DL-/ butanediol, DL-/ b	(CAS-No.) 27565-41-9	< 0.05	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RNA Substrate Tubes

No additional information available

diethyl pyrocarbonate (1609-47-8)

No additional information available

1,4-dithiothreitol, DL- (27565-41-9)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : No data available Odor : No data available Odor threshold : No data available No data available Melting point : Not applicable : No data available Freezing point : No data available Boiling point Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available

Relative density : No data available
Solubility : No data available
Log Pow : No data available
Auto-ignition temperature : No data available

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available Explosion limits : No data available Explosive properties : No data available Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

diethyl pyrocarbonate (1609-47-8)		
LD50 oral rat	850 mg/kg (Rat, Oral)	
ATE US (oral)	500 mg/kg body weight	

1,4-dithiothreitol, DL- (27565-41-9)

ATE US (oral) 500 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

	1	,4-dithiothreitol	. DL-	(27565-41-9)
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Specific target organ toxicity – single exposure May cause respiratory irritation.

Specific target organ toxicity – repeated : Not classified

exposure

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

diethyl pyrocarbonate (1609-47-8)		
Persistence and degradability	Biodegradability in water: no data available.	
1,4-dithiothreitol, DL- (27565-41-9)		
1,4-dithiothreitol, DL- (27565-41-9)		

12.3. Bioaccumulative potential

diethyl pyrocarbonate (1609-47-8)		
Bioaccumulative potential	No bioaccumulation data available.	
1,4-dithiothreitol, DL- (27565-41-9)		
1,4-dithiothreitol, DL- (27565-41-9)		

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

: Waste treatment methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

diethyl pyrocarbonate (1609-47-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

1,4-dithiothreitol, DL- (27565-41-9)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

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EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/11/2017

Full text of H-phrases:

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/29/2013 Revision date: 05/11/2017 Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Substance

Substance name : Molecular Grade Water

Product code : 136M

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Research and development

1.3. Supplier

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue Saint Louis, 63132-1429 - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : Molecular Grade Water

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment

 $: \ \ \ \text{Do not attempt to take action without suitable protective equipment. For further information}$

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures

: Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Molecular Grade Water

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Color : Clear

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Odor : None

Odor threshold : No data available рH No data available : Not applicable Melting point Freezing point No data available No data available Boiling point : No data available Flash point Relative evaporation rate (butyl acetate=1) No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available : No data available Relative density No data available Solubility Log Pow : No data available : No data available Auto-ignition temperature Decomposition temperature : No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic Explosion limits : No data available : No data available Explosive properties Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Specific target organ toxicity - single exposure

Acute toxicity (oral) : Not classified : Not classified Acute toxicity (dermal) Acute toxicity (inhalation) : Not classified Skin corrosion/irritation : Not classified Serious eye damage/irritation : Not classified Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Not classified Carcinogenicity Reproductive toxicity : Not classified

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: Not classified

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Specific target organ toxicity - repeated

exposure

: Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse

effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

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SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/11/2017

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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