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Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : End Repair Enzyme Mix

Product Number : 1003

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses.

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
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Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celeemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celeemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : End Repair Reaction Buffer

Product Number : 1004

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
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Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

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End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : T4 DNA Ligase

Product Number : 1005

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable extinguishing media**

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
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Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
--------------------------------	--------------------------

Transport hazard class(es)	No information available
-----------------------------------	--------------------------

Packing group	No information available
----------------------	--------------------------

Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

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End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : T4 DNA Ligase Buffer for Ion Torrent
Product Number : 1006
Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.
19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea
Telephone : +82-2-6746-8064
Fax : +82-2-6746-8073
E-mail address : Sales@celemics.com
Version : 2
Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
--------------------------------------	--------------------------

Bioaccumulative potential	No information available
----------------------------------	--------------------------

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celeemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celeemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Bst DNA Polymerase
Product Number : 1007
Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.
19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea
Telephone : +82-2-6746-8064
Fax : +82-2-6746-8073
E-mail address : Sales@celemics.com
Version : 2
Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
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Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celeemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celeemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : dNTP Mixture
Product Number : 1008
Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.
19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea
Telephone : +82-2-6746-8064
Fax : +82-2-6746-8073
E-mail address : Sales@celemics.com
Version : 2
Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
--------------------------------------	--------------------------

Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
--------------------------------	--------------------------

Transport hazard class(es)	No information available
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Packing group	No information available
----------------------	--------------------------

Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

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The information presented above is based on Celeemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celeemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : IonXpress 1~96
Product Number : 2001 ~ 2096
Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.
19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea
Telephone : +82-2-6746-8064
Fax : +82-2-6746-8073
E-mail address : Sales@celemics.com
Version : 2
Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
--------------------------------------	--------------------------

Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celeemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celeemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : P1 Adaptor

Product Number : 2097

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protective Equipment****Respiratory protection**

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
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Bioaccumulative potential	No information available
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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
-----------------------------	--------------------------

Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

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End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Library Amplification Forward Primer

Product Number : 2098

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
--------------------------------------	--------------------------

Bioaccumulative potential	No information available
----------------------------------	--------------------------

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
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UN proper shipping name	No information available
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Transport hazard class(es)	No information available
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Packing group	No information available
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Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

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End of Safety Data Sheet



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Library Amplification Reverse Primer

Product Number : 2099

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

19F, Bldg. A, BYC Highcity, 131, Gasandigital 1-ro, Geumcheon-gu, Seoul, 153-718, Korea

Telephone : +82-2-6746-8064

Fax : +82-2-6746-8073

E-mail address : Sales@celemics.com

Version : 2

Date of issue : 17/November/2021

Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Signal word

None.

Hazard pictograms

None.

Hazard Statements

No information available.

Precautionary Statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Other hazards

No information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances/Mixtures**

Ingredient name	Usual name	Cas No.	Amount (%)
No information applicable	-	-	-

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES**Description of first aid measures****Skin contact**

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the substance or mixture

Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Always wear recommended Personal Protective Equipment.
Use personal protection equipment.
See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Respiratory protection not required. Use appropriate respirators and components according to known or anticipated exposure levels if a risk assessment indicates this is necessary.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Skin corrosion/irritation No information available

Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Specific target organ toxicity (STOT) - single exposure	No information available
Specific target organ toxicity (STOT) - repeated exposure	No information available
Carcinogenicity	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
Aspiration hazard	No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil	No information available
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Persistence and degradability	No information available
--------------------------------------	--------------------------

Bioaccumulative potential	No information available
----------------------------------	--------------------------

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effect	No information available
-----------------------------	--------------------------

Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

UN number	No information available
------------------	--------------------------

UN proper shipping name	No information available
--------------------------------	--------------------------

Transport hazard class(es)	No information available
-----------------------------------	--------------------------

Packing group	No information available
----------------------	--------------------------

Environmental hazards

No information available.

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information

No information applicable

(Confirmed classification results)

EU Classification information

No information applicable

(Danger expression)

EU Classification information

No information applicable

(Safety expression)

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

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End of Safety Data Sheet