

Table. 3\_Celemics MSDS\_ReadyToUsePanel\_IonTorrent

1. LP10_1003_End Repair Enzyme Mix_Eng_MSDS_211117	1
2. LP10_1004_End Repair Reaction Buffer_Eng_MSDS_211117	7
3. LP10_1005_T4 DNA Ligase_Eng_MSDS_211117	13
4. LP10_1006_T4 DNA Ligase Buffer for Ion Torrent_Eng_MSDS_211117	19
5. LP10_1007_Bst DNA Polymerase_Eng_MSDS_211117	25
6. LP10_1008_dNTP Mixture_Eng_MSDS_211117	31
7. LP20_2001~2096_IonXpress 1~96_Eng_MSDS_211117	37
8. LP20_2097_P1 Adaptor_Eng_MSDS_211117	43
9. LP20_2098_Library Amplification Forward Primer_Eng_MSDS_211117	49
10. LP20_2099_Library Amplification Reverse Primer_Eng_MSDS_211117	55
11. TP30_3001_Block#1_Eng_MSDS_211117	61
12. TP30_3002_Block#2_Eng_MSDS_211117	67
13. TP30_3003_Block#3(l)_Eng_MSDS_211117	73
14. TP30_3005_Target Capture Probe #2_Eng_MSDS_211117	79
4008_Hyb Buffer Enhancer_Eng_MSDS_211117	85
Celemics MSDS_4007_Hyb Buffer_English_V2	93
Celemics_MSDS_4001_Wash Buffer #1_English_V3	94
Celemics_MSDS_4002_Wash Buffer #2_English_V3	95
Celemics_MSDS_4003_Wash Buffer #3_English_V3	102
TC#3_MSDS_5001_Target Capture Probe #1_English_V2(powder_liquid)	109



## 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 (CO<sub>2</sub>). 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.

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## **Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

### Information on basic physical and chemical properties

#### Appearance

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
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<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
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<b>UN proper shipping name</b>	No information available
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<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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

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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 (CO<sub>2</sub>). 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.

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**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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
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<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
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<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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** : 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 (CO<sub>2</sub>). 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.

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## **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.

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## **Section 9. PHYSICAL AND CHEMICAL PROPERTIES**



### Information on basic physical and chemical properties

#### Appearance

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

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

<b>Mobility in soil</b>	No information available
-------------------------	--------------------------

<b>Persistence and degradability</b>	No information available
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<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
-----------------------------------	--------------------------

<b>Packing group</b>	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**

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### **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** : 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 (CO<sub>2</sub>). 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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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

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#### 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 (CO<sub>2</sub>). 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

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

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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 (CO<sub>2</sub>). 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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
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<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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

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#### 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

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#### 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 (CO<sub>2</sub>). 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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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 (CO<sub>2</sub>). 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

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

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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.**

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** : 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 (CO<sub>2</sub>). 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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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** : 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 (CO<sub>2</sub>). 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.

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**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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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.

<b>UN number</b>	No information available
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<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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** : Block #1  
**Product Number** : 3001  
**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 (CO<sub>2</sub>). 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.

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## **Section 9. PHYSICAL AND CHEMICAL PROPERTIES**



### Information on basic physical and chemical properties

#### Appearance

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
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<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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 Celemics' 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, Celemics, 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** : Block #2  
**Product Number** : 3002  
**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 (CO<sub>2</sub>). 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.

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## **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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
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<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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**

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### **IATA/ADR/DOT-US/IMDG**

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
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<b>UN proper shipping name</b>	No information available
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<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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** : Block #3(l)  
**Product Number** : 3003  
**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 (CO<sub>2</sub>). 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

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

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

## **Section 12. ECOLOGICAL INFORMATION**

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### **Toxicity**

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	No information available
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## **Section 13. DISPOSAL CONSIDERATIONS**

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### **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.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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**

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### **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** : Target Capture Probe #2  
**Product Number** : 3005  
**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 (CO<sub>2</sub>). 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

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

Other decomposition products - No information available.

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

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

<b>Mobility in soil</b>	No information available
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<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

<b>Bioaccumulative potential</b>	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.

<b>Other adverse effect</b>	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.

<b>UN number</b>	No information available
------------------	--------------------------

<b>UN proper shipping name</b>	No information available
--------------------------------	--------------------------

<b>Transport hazard class(es)</b>	No information available
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<b>Packing group</b>	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

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### **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** : Hyb Buffer Enhancer  
**Product Number** : 4008  
**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

Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Acute toxicity, Dermal (Category 4)  
Skin corrosion/irritation (Category 1)  
Serious eye damage/eye irritation (Category 1)  
Long-term (chronic) aquatic hazard (Category 3)

#### Signal word

Danger

#### Hazard pictograms



#### Hazard Statements

- H302** Harmful if swallowed.  
**H312** Harmful in contact with skin.  
**H314** Causes severe skin burns and eye damage.  
**H318** Causes serious eye damage.  
**H332** Harmful if inhaled.  
**H412** Harmful to aquatic life with long lasting effects.

### Precautionary Statements

#### Prevention

- P261** Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
**P264** Wash the contact area thoroughly after handling.  
**P270** Do not eat, drink or smoke when using this product.  
**P271** Use only outdoors or in a well-ventilated area.  
**P273** Avoid release to the environment.  
**P280** Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response

- P301 + P312 + P330** IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
**P301 + P330 + P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
**P303 + P361 + P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**P304 + P340 + P310** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
**P305 + P351 + P338 + P310** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
**P361 + P364** Take off immediately all contaminated clothing and wash it before reuse.

#### Storage

- P405** Store locked up.

#### Disposal

- P501** Dispose of contents and container according to wastes controlact.

#### Other hazards

No information available

### Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances/Mixtures

Ingredient name	Usual name	Cas No.	Amount (%)
Guanidinium thiocyanate	Guanidinium thiocyanate		
	Guanidinium rhodanide	593-84-0	>= 65 - < 70
	Guanidinium isothiocyanate		

---

Guanidine isothiocyanate

---

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** Dry powder Dry sand.

**Unsuitable extinguishing media** No information available.

##### **Special hazards arising from the substance or mixture**

Combustible.

##### **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**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

#### **Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never allow product to get in contact with water during storage. Do not store near acids.

Light sensitive.

#### **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**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### **Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Eye protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin and Body protection**

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### **Environmental exposure controls**

No special environmental precautions required.

### **Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

---

#### **Information on basic physical and chemical properties**

##### **Appearance**

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

Other decomposition products - No information available.

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

**Thermal decomposition**

No information available.

## Section 11. TOXICOLOGICAL INFORMATION

---

**Information on toxicological effects**

**Inhalation**

Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion**

Harmful if swallowed. Causes burns.

**Skin**

Harmful if absorbed through skin. Causes skin burns.

**Aggravated Medical Condition**

May cause nervous system disturbances

**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**

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

**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

**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

Harmful to aquatic life with long lasting effects.

---

**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.

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**Section 14. TRANSPORT INFORMATION**
**IMDG**

UN number: 1760 Class: 8 Packing group: III EMS-No: F-A, S-B

Proper shipping name: CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)

**IATA**

UN number: 1760 Class: 8 Packing group: III

Proper shipping name: Corrosive liquid, n.o.s. (Guanidinium thiocyanate)

---

**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 (Confirmed classification results)	No information applicable
EU Classification information (Danger expression)	No information applicable
EU Classification information (Safety expression)	No information applicable

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**Section 16. OTHER INFORMATION**

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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 Celemics' 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, Celemics, 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** : Hyb Buffer

**Product Number** : 4007

**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

#### Health hazards

Not hazardous

#### Physical hazards

Not hazardous

#### Environmental hazards

Not hazardous

#### Hazard Statements

No information available



## Material Safety Data Sheet

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

---

#### Identification of the substance or mixture

Product name : Wash Buffer #1  
Product Number : 4001  
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 : 3  
Date of issue : 01/July/2022

### Section 2. HAZARDS IDENTIFICATION

---

#### . GHS - Classification

#### Signal word

None.

#### Hazard pictograms

None.

#### Hazard Statements

No information available.

#### Precautionary Statements

##### Prevention

No information available.

#### Response



# Material Safety Data Sheet

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

### Identification of the substance or mixture

Product name : Wash Buffer #2  
Product Number : 4002  
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 : 3  
Date of issue : 01/July/2022

## 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 (CO<sub>2</sub>). 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**

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

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**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<sub>x</sub>), 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<sub>x</sub>), 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

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

**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

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#### 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

<b>Reason for revision</b>	<b>SDS sections updated</b>
<b>Revision number</b>	<b>3</b>
<b>Revision date</b>	<b>01-Jul-2022</b>

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

The information presented above is based on Celemics' 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, Celemics, 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 : Wash Buffer #3  
Product Number : 4003  
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 : 3  
Date of issue : 01/July/2022

## 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 (CO<sub>2</sub>). 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**

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

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**Section 10. STABILITY AND REACTIVITY**

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**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<sub>x</sub>), 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<sub>x</sub>), 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

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

## Section 12. ECOLOGICAL INFORMATION

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### Toxicity

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

<b>Mobility in soil</b>	No information available
<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Results of PBT and vPvB assessment</b>	
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	
<b>Other adverse effect</b>	No information available

## Section 13. DISPOSAL CONSIDERATIONS

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### 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 accordance with 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

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### IATA/ADR/DOT-US/IMDG

Not classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	No information available
<b>UN proper shipping name</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	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	3
Revision date	01-Jul-2022

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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 : Target Capture Probe #1  
Product Number : 5001  
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 : 23/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 (CO<sub>2</sub>). 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**

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### **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**

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### **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**

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### **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.

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**Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Appearance**

<b>State</b>	Powder,Liquid
<b>Color</b>	Colourless
<b>Odour</b>	No information available
<b>Odour threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point</b>	No information available
<b>Initial boiling point and boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Upper/lower flammability or explosive limits</b>	No information available
<b>Vapour pressure</b>	No information available
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<b>Water solubility</b>	No information available
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<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
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<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available

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**Section 10. STABILITY AND REACTIVITY**

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

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**Conditions to avoid**

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**Incompatible products**

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<b>Aspiration hazard</b>	No information available

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<b>Bioaccumulative potential</b>	No information available
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## Section 14. TRANSPORT INFORMATION

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<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	No information available

### Environmental hazards

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### Special precautions for user

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**Section 15. REGULATORY INFORMATION**


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**Regulation under the Occupational Safety and Health Act**

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

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**Dangerous Substances Safety Management Act**

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**Wastes Control Act**

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**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)**


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**Section 16. OTHER INFORMATION**


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<b>Reason for revision</b>	<b>SDS sections updated</b>
<b>Revision number</b>	<b>2</b>
<b>Revision date</b>	<b>24-Nov-2021</b>

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**End of Safety Data Sheet**

