Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: WEPRO®7240

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Physical State: Liquid

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,w/v%	CAS No.
Adenosine-5'-triphosphate Disodium Salt	Less than 1	51963-61-2
2-[-4-(2-Hydroxyethyl)-1-piperazinyl]ethanesulfonic Acid	Less than 1	7365-45-9
Disodium Creatinephosphate Tetrahydrate	Less than 1	922-32-7
Potassium Acetate	Less than 2	127-08-2
Wheat germ Extract (Natural Product)	75 - 90	Not applicable

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: SUB-AMIX® SGC

(SUB-AMIX® SGC is translation buffers which are composed of S1,S2, S3 and S4.)

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Physical State: Aqueous solution

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

	CHEMICAL NAME	Concentration,w/v%	CAS No.
S1 ~ S4	2-[-4-(2-Hydroxyethyl)-1-piperazinyl]ethanesulfonic Acid	Less than 30	7365-45-9
	Adenosine 3',5'-Cyclic Monophosphate Hydrate	Less than 2	60-92-4
	Adenosine-5'-triphosphate Disodium Salt	Less than 3	51963-61-2
	Disodium Creatinephosphate Tetrahydrate	Less than 22	922-32-7
	Threo-1,4-Dimercapto-2,3-butanediol	Less than 3	3483-12-3
	Glycine	Less than 1	56-40-6
	L-Alanine	Less than 1	56-41-7
	L-Arginine(HCl)	Less than 1	1119-34-2
	L-Asparagine(H2O)	Less than 1	5794-13-8
	L-Aspartic Acid	Less than 1	56-84-8
	L-Cysteine(HCl,H2O)	Less than 1	7048-04-6
	L-Glutamic Acid	Less than 1	56-86-0
	L-Glutamine	Less than 1	56-85-9
	L-Histidine(HCl,H2O)	Less than 1	5934-29-2
	L-Isoleucine	Less than 1	73-32-5
	L-Leucine	Less than 1	61-90-5
	L-Lysine(HCl)	Less than 1	657-27-2
	L-Methionine	Less than 1	63-68-3
	L-Phenylalanine	Less than 1	63-91-2
	L-Proline	Less than 1	147-85-3
	L-Serine	Less than 1	56-45-1
	L-Threonine	Less than 1	72-19-5
	L-Tryptophan	Less than 1	73-22-3
	L-Tyrosine	Less than 1	60-18-4
	L-Valine	Less than 1	72-18-4
	Magnesium Acetate Tetrahydrate	Less than 3	16674-78-5
	Potassium Acetate	Less than 40	127-08-2
	Spermidine Trihydrochloride	Less than 2	334-50-9

pH to be adjusted with potassium hydroxide(About pH7.8)

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: SP6 RNA Polymerase(80,000 units / mL)

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Classification of the substance or mixture
The product is not classified according to the Globally harmonized System (GHS).

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Not applicable. Product has been classified as none-hazardous.

Label elements
GHS label elements: Void
Hazard pictograms: Void
Signal word: Void
Hazard Statements: Void
Classification system:
NFPA rating
Health = 0
Fire = 0
Reactivity = 0

HMIS-rating:
Health = 0
Fire = 0
Reactivity = 0

OSHA hazard Overview: Not applicable

Target organ(s): May cause kidney damage

Physical State: Aqueous solution

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	Concentration,%	CAS No.
Glycerol	50 - 75	56-81-5
Polyethylene glycol tert-octylphenyl ether	Less than 1	9002-93-1

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Fluid
BOILING POINT:	Not applicable
MELTING POINT:	Not available
FREEZING POINT:	Not applicable
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: RNase Inhibitor(80,000 units / mL)

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Classification of the substance or mixture
The product is not classified according to the Globally harmonized System (GHS).

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Not applicable. Product has been classified as none-hazardous.

Label elements
GHS label elements: Void
Hazard pictograms: Void
Signal word: Void
Hazard Statements: Void
Classification system:
NFPA rating
Health = 0
Fire = 0
Reactivity = 0

HMIS-rating:
Health = 0
Fire = 0
Reactivity = 0

OSHA hazard Overview: Not applicable

Target organ(s): May cause kidney damage

Physical State:	Aqueous solution
Principal Routes of exposure/Potential Health Effects	
Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects	
Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	Concentration,%	CAS No.
Glycerol	25 - 50	56-81-5

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Fluid
BOILING POINT:	Not applicable
MELTING POINT:	Not available
FREEZING POINT:	Not applicable
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: 5x Transcription Buffer LM

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Physical State:	Aqueous solution
Principal Routes of exposure/Potential Health Effects	
Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,w/v%	CAS No.
2-[-4-(2-Hydroxyethyl)-1-piperazinyl]ethanesulfonic Acid	Less than 10	7365-45-9
Threo-1,4-Dimercapto-2,3-butanediol	Less than 1	3483-12-3
Magnesium Acetate Tetrahydrate	Less than 1	16674-78-5
Spermidine Trihydrochloride	Less than 1	334-50-9

pH to be adjusted with potassium hydroxide(About pH8)

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: NTPmix

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Physical State: Aqueous solution

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,w/v%	CAS No.
ATP	Less than 2	51963-61-2
CTP	Less than 2	81012-87-5
GTP	Less than 2	36051-31-7
UTP	Less than 2	19817-92-6

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: Creatine Kinase

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

Physical State: Aqueous solution

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	May cause gastrointestinal irritation, nausea, vomiting and diarrhea

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,w/v%	CAS No.
Creatine Kinase, aqueous solution	Less than 3	None

4. FIRST AID AND MEASURES

INHALATION:
Consult a physician. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

SKIN CONTACT:
Rinse with plenty of water. If skin irritation persists, call a physician. Remove and wash contaminated clothing before re-use.

EYE CONTACT:
In case of contact with eyes, rinse with plenty of water and seek medical advice.

INGESTION:
Consult a physician. Do not induce vomiting without medical advice.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Use dry chemical, Carbon dioxiside, water spray or alcohol foam

Unusual hazards:
None known

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.
MATERIAL TO AVOID	Strong acids and bases. Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: Asolectin Liposome, Lyophilized

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. HAZARDOUS IDENTIFICATION

GHS Classification: N/A
Other hazards: none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,wt%	CAS No.
Asolectin, from soybean	100	69279-91-0

4. FIRST AID AND MEASURES

INHALATION EXPOSURE:
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

SKIN CONTACT:
Wash off with soap and plenty of water. Remove all contaminated clothing and shoes. If irritation is continued, refer to medical attention.

EYE CONTACT:
Flush with copious amounts of water. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

INGESTION:
Wash out mouse with water provided person is conscious. Rinse mouth with water. Call a physician. Never give anything to someone unconscious.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:
Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OF MIXTURE:
Carbon oxides, nitrogen oxides (NOx).

FIREFIGHTING:
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

FUTHER INFORMATION:
No data available

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
Avoid dust formation. Avoid breathing vapours, mist or gas.

ENVIRONMENTAL PRECAUTIONS:
Do not let product enter drains.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

HANDLING:
Provide appropriate exhaust ventilation at place where dust is formed.

STORAGE:
No special measures necessary. Store at room temperature or below.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROL:
Use this product only in a totally enclosed systems or local exhaust ventilation. Make available in the work area with emergency shower and eyes washer.

CONTROL PARAMETERS:
Components with workplace control parameters.

ENGINEERING MEASURE:
Do not use in area without adequate ventilation and local exhaust ventilation. Make available in the work area with emergency shower and eye washer.

PERSONAL PROTECTION EQUIPMENT;
Respiratory protection: Respiratory protection is not required.
Eye protection: Safety goggles
Hand and skin protection: Chemical-resistant groves
Body protection: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Beige powder
ODOUR:	No data available
pH:	No data available
MELTING POINT:	No data available
BOILING POINT:	No data available
FLASH POINT:	No data available
RELATIVE DENSITY:	No data available
SOLUBILITY IN WATER:	No data available
PARTITION COEFFICIENT (N-OCTANOL/WATER):	No data available
AUTO-IGNITION TEMPERATURE:	No data available
EXPLOSIVE LIMITS:	No data available
VAPOR PRESSURE:	No data available
VAPOR DENSITY:	No data available
DECOMPOSITION TEMPERATURE:	No data available

10. STABILITY AND REACTIVITY

REACTIVITY:	No data available
CHEMICAL STABILITY:	Stable under recommended storage conditions.
CONDITIONS TO AVOID:	No data available
INCOMPATIBLE MATERIALS:	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS:	No data available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	No data available
SKIN CORROSION/IRRITATION:	No data available
SERIOUS EYE DAMAGE/EYE IRRITATION:	No data available
RESPIRATORY OR SKIN SENSITIZATION:	No data available
GERM CELL MUTAGENICITY:	No data available
CARCINOGENIC EFFECTS:	No data available
REPRODUCTIVE TOXICITY:	No data available
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE:	No data available
SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE:	No data available
ASPIRATION HAZARD:	No data available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	No data available
BIOACCUMULATION POTENTIAL:	No data available
ECO-TOXICITY:	No data available

13. DISPOSAL CONSIDERATION

Offer surplus and non-recyclable solutions to a licensed disposal company.

14. TRANSPORT INFORMATION

UN CLASSIFICATION:	N/A
UN NUMBER:	None.
SPECIAL PRECAUTIONS FOR USER:	No data available
IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Regulatory information with regard to this preparation in your country or region should be examined by your own responsibility.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.D

Safety Data Sheet

Created date 01-Feb.-2013
Revision date 01-Aug.-2018

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY /UNDERTAKING

Product Name: pEU-E01-T1R1

Identified use: Laboratory chemicals

Company/Undertaking Identification

CellFree Sciences Co., Ltd
Yokohama Bio Industry Center, 1-6 Suehiro-cho Tsurumi-ku,
Yokohama, Kanagawa 230-0045, Japan

Contact Information
Sales & Marketing Department
E-mail: tech-sales@cfsciences.com
Tel: +81-(0)45-345-2625

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

The product contains no substances which, at their given concentration, are considered to be hazardous to health

CHEMICAL NAME	Concentration,w/v%	CAS No.
Tris(hydroxymethyl)aminomethane	Less than 1	77-86-1

3. HAZARDOUS IDENTIFICATION

Physical State: Aqueous solution

Principal Routes of exposure/Potential Health Effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	Maybe harmful if swallowed

Specific effects

Carcinogenic Effects	No information available
Mutagenic Effects	No information available
Reproductive Toxicity	No information available
Sensitization	No information available

4. FIRST AID AND MEASURES

GENERAL ADVICE:
Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION:
Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:
Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT:
Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION:
Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Carbon dioxide, dry chemical powder, foam, water

FIRE&EXPLOSION HAZARDS:
Toxic, irritating dust or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
Firemen should wear normal protective equipment (full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

METHODS FOR CLEAN UP:
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

HANDLING:
No special measures necessary. Good laboratory technique should be used when handling.

STORAGE:
No special measures necessary. Store at -20℃ ~ -80℃.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES:
Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION:
Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;
Respiratory protection:
Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Hand protection:	Chemical resistant gloves
Eye protection:	Safety glasses (goggles)
Skin protection:	Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear aqueous solution
BOILING POINT:	Above 100 degree C
MELTING POINT:	Not available
FREEZING POINT:	Below 0 degree C
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	Not available

10. STABILITY AND REACTIVITY

STABILITY:	Stable, under normal handling and storage conditions.
DECOMPOSITION:	No date available.
CONDITIONS TO AVOID:	Contact with strong oxidants or fire.
HAZARDOUS POLYMERIZATION:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:	Not available
IRRITATION DATA:	Not available
MUTATION DATA:	Not available
REPRODUCTIVE EFFECTS DATA:	Not available
TUMORIGENIC DATA:	Not available

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	Not available
BIOACCUMULATION POTENTIAL:	Not available
AQUATIC TOXICITY:	Not available

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules.)

14. TRANSPORT INFORMATION

IATA:	Not Restricted.
DOT(Department of Transportation):	Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

Comply with all countries, national and local regulations.

16. OTHER INFORMATION

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volume. or conditions of use the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY , EXPRESSED OR IMPLIED, OF ITS SUITABILITY FOR A PARTICULAR PURPOSE.