

## Material Safety Data Sheet

### FavorPrep™ Plasmid Extraction Mini Kit

Cat. No.:	FSPD1020 (4 preps)	FSPD1023 (50 preps)	FSPD1024 (100 preps)	FSPD1026 (300 preps)
Contents				
FAPD1 Buffer	1.5 ml	15 ml	30 ml	90 ml
FAPD2 Buffer	1.5 ml	15 ml	30 ml	90 ml
FAPD3 Buffer	1.5 ml	20 ml	40 ml	120 ml
WF Buffer (Concentrate)	1.3 ml	17.5 ml	35 ml	98 ml
Wash Buffer (Concentrate)	1 ml	10 ml	20 ml	50 ml
Elution Buffer	0.5 ml	10 ml	15 ml	35 ml
RNase A Solution	10 µl	75 µl	130 µl	420 µl

**Favorgen Biotech Corp.**

Address: Ping-Tung Agricultural Biotechnology Park  
No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126,  
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# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: FAPD1 Buffer

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

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### 1.3 Details of the supplier of the safety data sheet

Company: Favorgen Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

### 1.4 Emergency telephone number

+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

No hazardous substance as specified in Regulation (EC) No 1272/2008.

### 2.2 Label elements

Does not need labelling as hazardous.

### 2.3 Other hazards

Not applicable.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical:	chemicals/mixture < 1%,	no declaration necessary	CAS No.: -----
Concentration:	0.1 - <1%		

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

Supply fresh air.

#### In case of skin contact

Remove contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

Rinse out with plenty of water.

#### If swallowed

Consult a doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None.

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## 5.3 Advice for firefighters

No explosion hazard.

## 5.4 Additional Information

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## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system.

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

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## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters: None

Contains no substances with occupational exposure limit.

### 8.2 Exposure controls

#### Personal protective equipment

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

**Eye/face protection:** Tight sealing safety glasses.

**Hand protection:** Protective gloves.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: clear/Odor: odorless/pH: 7.5~8.5

### 9.2 Other information

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## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None.

### 10.2 Chemical stability

No data available.

### 10.3 Possibility of hazardous reactions

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None.

## 10.4 Conditions to avoid

Not necessary.

## 10.5 Incompatible materials

None.

## 10.6 Hazardous decomposition products

Decompositions are not observed during the expiration period under recommended conditions.

## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity	Not Classified
Skin corrosion/irritation	Not Classified
Serious eye damage/irritation	Not Classified
Respiratory or skin sensitization	Not Classified
Germ cell mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive toxicity	Not Classified
Specific target organ toxicity (STOT) – single exposure	Not Classified
Specific target organ toxicity (STOT) – repeated exposure	Not Classified
Aspiration hazard	Not Classified

### 11.2 Information on other hazards

No data available.

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Contains no substances known to be hazardous to the ecosystem.

### 12.2 Persistence and degradability

No data available.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

No data available.

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

No dangerous goods according to transport regulations

### 14.1 UN number

# Material Safety Data Sheet

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ADR/RID: -

IMDG: -

IATA: -

## 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IMDG: Not dangerous goods

## 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

## 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

## 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

## 14.6 Special precautions for user

None

## 14.7 Maritime transport in bulk according to IMO instruments

Not Applicable.

### Further information

Not classified as dangerous in transport regulations.

## Section 15. REGULATIONS INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

Not necessary.

## Section 16. REGULATIONS INFORMATION

### 16.1 List of R, H and P phrases

Full text of H-Statements referred to under sections 2 and 3.

### 16.2 Training Advice

Regular safety training.

### 16.3 Recommended Restriction on Use

Only for professional/research user.

## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: **FAPD2 Buffer**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture/Lysis Buffer

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

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### 1.3 Details of the supplier of the safety data sheet

Company: Favorgen Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

### 1.4 Emergency telephone number

+886-8-762-1829

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Hazard identification Hazard classes/categories

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

GHS hazard pictograms:



GHS07

Signal word: **WARNING**

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash.

### 2.2 Label elements

According to section 1.5.2 of Annex I to CLP

GHS symbol



GHS07

WARNING

### 2.3 Other hazards

Not applicable

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical:	<b>Sodium dodecyl sulfate</b>	CAS No.: 151-21-3
Concentration:	1~5%	

Chemical:	<b>Sodium hydroxide</b>	CAS No.: 1310-73-2
Concentration:	1~1.5%	

Always wear recommended Personal Protective Equipment.

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

#### In case of skin contact

After skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

#### If in eyes:

Rinse cautiously with water for several minutes.

### 4.2 Most important symptoms and effects, both acute and delayed

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

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## 4.3 Indication of any immediate medical attention and special treatment needed

Wear Personal Protective Equipment. If skin irritation occurs: Get medical advice.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None known.

### 5.3 Advice for firefighters

Wear self-contained breathing equipment and protective suit.

### 5.4 Additional Information

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## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Do not breathe vapours/Ensure adequate ventilation/Avoid contact with skin, eyes or clothing/Use personal protection equipment/Regular staff training is necessary.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system.

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

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## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters: None

Chemical:	<b>Sodium dodecyl sulfate</b>	CAS No.: 151-21-3
Concentration:	1~5%	

Chemical:	<b>Sodium hydroxide</b>	CAS No.: 1310-73-2
Concentration:	1~1.5%	

### 8.2 Exposure controls

Good ventilation and exhaust system in the workplace, and the floor has drainage and washing facilities, which can resist the erosion of chemicals. Must maintain the highest level of cleanliness in the workplace.

#### Personal protective equipment

**Eye/face protection:** Safety glasses. Used to prevent splash hazards. Government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Recommended to avoid contamination with these hazards.

**Hand protection:** Protective gloves, use for short times chemical resistant latex gloves with code EN 374-3 level 1.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

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## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: no data/Odor: odorless/pH: 13/Density: 1.008 g/cm<sup>3</sup>

### 9.2 Other information

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## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under normal condition.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

No dangerous reaction known under normal use.

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Not Classified

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50 (Rat)
Sodium dodecyl sulfate CAS No.: 151-21-3	1,228 mg/kg	200 mg/kg	3,900 mg/m <sup>3</sup>
Sodium hydroxide CAS No.: 1310-73-2	325 mg/kg	1,350 mg/kg	No data available

Skin corrosion/irritation

Not Classified

Serious eye damage/irritation

Not Classified

Respiratory or skin sensitization

Not Classified

Germ cell mutagenicity

Not Classified

Carcinogenicity

Not Classified

Reproductive toxicity

Not Classified

Specific target organ toxicity (STOT) – single exposure

Not Classified

Specific target organ toxicity (STOT) – repeated exposure

Not Classified

Aspiration hazard

Not Classified

### 11.2 Information on other hazards

No data available.

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Following information is valid for pure substances.

Sodium dodecyl sulfate

CAS No.: 151-21-3

EC50 Daphnia magna/48h: 1.8 mg/L

Sodium hydroxide

CAS No.: 1310-73-2WGK (DE): 1

No data available



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## 12.2 Persistence and degradability

No data available.

## 12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

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

## 12.6 Endocrine disrupting properties

No additional data available.

## 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

No dangerous goods according to transport regulations

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IMDG: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

### 14.6 Special precautions for user

None.

### 14.7 Maritime transport in bulk according to IMO instruments

Not Applicable.

### Further information

Not classified as dangerous in transport regulations.

## Section 15. REGULATIONS INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

Not necessary.

## Section 16. REGULATIONS INFORMATION

### 16.1 List of R, H and P phrases

Full text of H-Statements referred to under sections 2 and 3.

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## 16.2 Training Advice

Regular safety training.

## 16.3 Recommended Restriction on Use

Only for professional/research user.

## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: **FAPD3 Buffer**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

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### 1.3 Details of the supplier of the safety data sheet

Company: FAVORGEN Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

### 1.4 Emergency telephone number

+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Hazard identification Hazard classes/categories

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

GHS hazard pictograms:



GHS07

Signal word: **WARNING**

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

### 2.2 Label elements

According to section 1.5.2 of Annex I to CLP

GHS symbol



GHS07

WARNING

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## 2.3 Other hazards

Not applicable.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical:	<b>Guanidine hydrochloride</b>	CAS No.: 50-01-1
Concentration:	36 - <50%	
Classification:	H302, Acute oral Tox. 4 H315, Skin Irritation 2 H319, Eye Irritation 2	

Chemical:	<b>Acetate acid</b>	CAS No.: 64-19-7
Concentration:	10 - <20%	
Classification:	No criteria for classification or naming of chemical not required.	

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

#### In case of skin contact

After skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Exposure to decomposition products may be a hazard to health

### 5.3 Advice for firefighters

Hazardous combustion products: Carbon oxides/Nitrogen oxides (NOx)/Carbon monoxide/Carbon dioxide/  
Unburned hydrocarbons (smoke)/Potassium oxide

### 5.4 Additional Information

Wear self-contained breathing apparatus for firefighting if necessary.

## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Do not breathe vapours/Ensure adequate ventilation/Avoid contact with skin, eyes or clothing/Use personal protection equipment/Regular staff training is necessary.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

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## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment./Do not breathe vapors/dust./Avoid contact with skin and eyes./Smoking, eating and drinking should be prohibited in the application area./Dispose of rinse water in accordance with local and national regulations.

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

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

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Ingredients with workplace control parameters

Ingredients:	CAS No.:	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		ST	15 ppm, 37 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm	NIOSH REL

### 8.2 Exposure controls

Good ventilation and exhaust system in the workplace, and the floor has drainage and washing facilities, which can resist the erosion of chemicals. Must maintain the highest level of cleanliness in the workplace

#### Personal protective equipment

**Eye/face protection:** Safety glasses. Used to prevent splash hazards. Government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Recommended to avoid contamination with these hazards.

**Hand protection:** Protective gloves, use for short times chemical resistant latex gloves with code EN 374-3 level 1.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: No data available/Odor: characteristic/pH: 4.5/Specific gravity: 1.15 g/cm<sup>3</sup>/Flash point: >160°C

### 9.2 Other information

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## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Decompositions are not observed during the expiration period under recommended conditions.

### 10.3 Possibility of hazardous reactions

Decompositions are not observed during the expiration period under recommended conditions.

### 10.4 Conditions to avoid

10.4.1 Hazardous decomposition products formed under fire conditions.

10.4.2 Keep away from oxidizing agents, and acidic or alkaline products.

### 10.5 Incompatible materials

No data available.

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## 10.6 Hazardous decomposition products

Decompositions are not observed during the expiration period under recommended conditions.

## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Not Classified

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50 (Rat)
Guanidine hydrochloride CAS No.: 50-01-1	1,120 mg/kg	2000 mg/kg	[4h] 3181-7655 µg/m <sup>3</sup>
Acetic acid CAS No.: 64-19-7	3,310 mg/kg	1,112 mg/kg	11.4 mg/l (4h)

#### Skin corrosion/irritation

Skin irritation/Irritating to eyes

#### Serious eye damage/irritation

May cause irretrievable eye damage

#### Respiratory or skin sensitization

May irritate skin

#### Specific target organ toxicity (STOT) – single exposure

Not Classified

#### Specific target organ toxicity (STOT) – repeated exposure

Not Classified

#### Carcinogenicity

Not Classified

#### Germ cell mutagenicity

Not Classified

#### Reproductive toxicity

Not Classified

#### Aspiration hazard

Not Classified

### 11.2 Information on other hazards

No data available.

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Following information is valid for pure substances.

Chemical: Acetate acid, CAS No.: 64-19-7

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l, Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 300.82 mg/l,

Exposure time: 48 h

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Endocrine disrupting properties

No additional data available.

### 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

No dangerous goods according to transport regulations

### 14.1 UN number

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



ADR/RID: -	IMDG: -	IATA: -
<b>14.2 UN proper shipping name</b>		
ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IMDG: Not dangerous goods
<b>14.3 Transport hazard class(es)</b>		
ADR/RID: -	IMDG: -	IATA: -
<b>14.4 Packaging group</b>		
ADR/RID: -	IMDG: -	IATA: -
<b>14.5 Environmental hazards</b>		
ADR/RID: no	IMDG Marine pollutant: no	IATA-DGR: no
<b>14.6 Special precautions for user</b>		
None.		
<b>14.7 Maritime transport in bulk according to IMO instruments</b>		
Not Applicable.		
<b>Further information</b>		
Not classified as dangerous in transport regulations.		

## Section 15. REGULATIONS INFORMATION

**15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture**  
Look for your country-specific regulations.

**15.2 Chemical safety assessment**  
Not necessary.

## Section 16. REGULATIONS INFORMATION

**16.1 List of R, H and P phrases**  
Full text of H-Statements referred to under sections 2 and 3.

**16.2 Training Advice**  
Regular safety training.

**16.3 Recommended Restriction on Use**  
Only for professional/research user.

## Section 1. IDENTIFICATION

**1.1 Product Identifier**  
Commercial Product Name: WF Buffer

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Product form: Laboratory chemical mixture

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:  
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**1.3 Details of the supplier of the safety data sheet**  
Company: Favorgen Biotech Corp.  
Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN  
Phone Number: +886-8-762-1829

**1.4 Emergency telephone number**  
+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

# Material Safety Data Sheet

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## 2.1 Classification of the substance or mixture

Hazard identification Hazard classes/categories

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

GHS hazard pictograms:



GHS07

Signal word: **WARNING**

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

## 2.2 Label elements

According to section 1.5.2 of Annex I to CLP

GHS symbol



GHS07

WARNING

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical:	<b>Guanidine hydrochloride</b>	CAS No.: 50-01-1
Concentration:	36 - <50%	
Classification:	H302, Acute oral Tox. 4 H315, Skin Irritation 2 H319, Eye Irritation 2	

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

#### In case of skin contact

After skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## 4.3 Indication of any immediate medical attention and special treatment needed

No data available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None known.

### 5.3 Advice for firefighters

No specific fire or explosion hazard

### 5.4 Additional Information

Wear self-contained breathing apparatus for firefighting if necessary.

## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Do not breathe vapours/Ensure adequate ventilation/Avoid contact with skin, eyes or clothing/Use personal protection equipment/Regular staff training is necessary.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

---

## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

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

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Chemical: guanidine hydrochloride

CAS No.: 50-01-1

NIOSH: not listed

OSHA: not listed

### 8.2 Exposure controls

Good ventilation and exhaust system in the workplace, and the floor has drainage and washing facilities, which can resist the erosion of chemicals. Must maintain the highest level of cleanliness in the workplace

#### Personal protective equipment

**Eye/face protection:** Safety glasses. Used to prevent splash hazards. Government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Recommended to avoid contamination with these hazards.

**Hand protection:** Protective gloves, use for short times chemical resistant latex gloves with code EN 374-3 level 1.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.



# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/ Color: slightly yellow/ Odor: odorless

### 9.2 Other information

---

## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reactions

**Note:** Can form very reactive substances with oxidizing agents

### 10.4 Conditions to avoid

Not necessary

### 10.5 Incompatible materials

**Note:** Avoid contact with strong acids or alkalines.

### 10.6 Hazardous decomposition products

Decompositions are not observed during the expiration period under recommended conditions.

## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Not Classified

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50 (Rat)
Guanidine hydrochloride CAS No.: 50-01-1	1,120 mg/kg	2000 mg/kg	[4h] 3181-7655 µg/m <sup>3</sup>

#### Skin corrosion/irritation

Skin irritation/Irritating to eyes

#### Serious eye damage/irritation

Not Classified

#### Respiratory or skin sensitization

Not Classified

#### Specific target organ toxicity (STOT) – single exposure

Not Classified

#### Specific target organ toxicity (STOT) – repeated exposure

Not Classified

#### Carcinogenicity

Not Classified

#### Germ cell mutagenicity

Not Classified

#### Reproductive toxicity

Not Classified

#### Aspiration hazard

Not Classified

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Following information is valid for pure substances.

Chemical: guanidine hydrochloride CAS No.: 50-01-1

LC50leuciscus idus/96h: 1759 mg/L

WGK (DE): 1 WGK No.: 0788

Storage class (VCI): 12

### 12.2 Persistence and degradability

No data available.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

No data available.

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## 12.6 Endocrine disrupting properties

No additional data available

## 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

No dangerous goods according to transport regulations

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IMDG: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

### 14.6 Special precautions for user

#### Further information

Not classified as dangerous in transport regulations.

## Section 15. REGULATIONS INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

Not necessary

## Section 16. REGULATIONS INFORMATION

### 16.1 List of R, H and P phrases

Full text of H-Statements referred to under sections 2 and 3.

### 16.2 Training Advice

Regular safety training.

### 16.3 Recommended Restriction on Use

Only for professional/research user.

## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: Wash Buffer

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

-----

## 1.3 Details of the supplier of the safety data sheet

Company: Favorgen Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

## 1.4 Emergency telephone number

+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

No hazardous substance as specified in Regulation (EC) No 1272/2008.

### 2.2 Label elements

Does not need labelling as hazardous.

### 2.3 Other hazards

Not applicable.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical:	chemicals/mixture < 1%,	no declaration necessary	CAS No.: -----
Concentration:	0.1 - <1%		

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

Supply fresh air.

#### In case of skin contact

Remove contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

Rinse out with plenty of water.

#### If swallowed

Consult a doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None.

### 5.3 Advice for firefighters

No explosion hazard.

### 5.4 Additional Information

---

## Section 6. ACCIDENTAL RELEASE MEASURE

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## 6.1 Personal precautions, protective equipment, and emergency procedures

Ensure adequate ventilation.

## 6.2 Environmental precautions

Do not allow mixture to enter ground water system.

## 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

## 6.4 Reference to other sections

---

## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Contains no substances with occupational exposure limit.

### 8.2 Exposure controls

#### Personal protective equipment

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

**Eye/face protection:** Tight sealing safety glasses.

**Hand protection:** Protective gloves.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: Clear/Odor: odorless/pH: 7.5~8.5

### 9.2 Other information

---

## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None.

### 10.2 Chemical stability

No data available.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Not necessary.

### 10.5 Incompatible materials

None.

### 10.6 Hazardous decomposition products

Decompositions are not observed during the expiration period under recommended conditions.

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity	Not Classified
Skin corrosion/irritation	Not Classified
Serious eye damage/irritation	Not Classified
Respiratory or skin sensitization	Not Classified
Germ cell mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive toxicity	Not Classified
Specific target organ toxicity (STOT) – single exposure	Not Classified
Specific target organ toxicity (STOT) – repeated exposure	Not Classified
Aspiration hazard	Not Classified

### 11.2 Information on other hazards

No data available.

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Contains no substances known to be hazardous to the ecosystem.

### 12.2 Persistence and degradability

No data available.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: -	IMDG: -	IATA: -
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### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IMDG: Not dangerous goods
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### 14.3 Transport hazard class(es)

ADR/RID: -	IMDG: -	IATA: -
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### 14.4 Packaging group

ADR/RID: -	IMDG: -	IATA: -
------------	---------	---------

### 14.5 Environmental hazards

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

## 14.6 Special precautions for user

None.

## 14.7 Maritime transport in bulk according to IMO instruments

Not Applicable.

## Further information

Not classified as dangerous in transport regulations.

## Section 15. REGULATIONS INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

Not necessary.

## Section 16. REGULATIONS INFORMATION

### 16.1 List of R, H and P phrases

Full text of H-Statements referred to under sections 2 and 3.

### 16.2 Training Advice

Regular safety training.

### 16.3 Recommended Restriction on Use

Only for professional/research user.

## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: Elution Buffer

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

-----

### 1.3 Details of the supplier of the safety data sheet

Company: FAVORGEN Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

### 1.4 Emergency telephone number

+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

No hazardous substance as specified in Regulation (EC) No 1272/2008.

### 2.2 Label elements

Does not need labelling as hazardous.

### 2.3 Other hazards

Not applicable.

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical: chemicals/mixture < 1%, no declaration necessary CAS No.: -----  
Concentration: 0.1 - <1%

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

Supply fresh air.

#### In case of skin contact

Remove contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

Rinse out with plenty of water.

#### If swallowed

Consult a doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None.

### 5.3 Advice for firefighters

No explosion hazard.

### 5.4 Additional Information

---

## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system.

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

---

## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

For research use only.

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Contains no substances with occupational exposure limit.

### 8.2 Exposure controls

#### Personal protective equipment

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

**Eye/face protection:** Tight sealing safety glasses.

**Hand protection:** Protective gloves.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: Clear/Odor: odorless/pH: 8.0~9.0

### 9.2 Other information

---

## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None.

### 10.2 Chemical stability

No data available.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Not necessary.

### 10.5 Incompatible materials

None.

### 10.6 Hazardous decomposition products

Decompositions are not observed during the expiration period under recommended conditions.

## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity	Not Classified
Skin corrosion/irritation	Not Classified
Serious eye damage/irritation	Not Classified
Respiratory or skin sensitization	Not Classified
Germ cell mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive toxicity	Not Classified
Specific target organ toxicity (STOT) – single exposure	Not Classified
Specific target organ toxicity (STOT) – repeated exposure	Not Classified
Aspiration hazard	Not Classified

### 11.2 Information on other hazards

No data available.

## Section 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Contains no substances known to be hazardous to the ecosystem.



# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



## 12.2 Persistence and degradability

No data available.

## 12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

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

## 12.6 Endocrine disrupting properties

No data available.

## 12.7 Other adverse effects

No data available.

## Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IMDG: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

### 14.6 Special precautions for user

None

### 14.7 Maritime transport in bulk according to IMO instruments

Not Applicable.

### Further information

Not classified as dangerous in transport regulations.

## Section 15. REGULATIONS INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

Not necessary.

## Section 16. REGULATIONS INFORMATION

### 16.1 List of R, H and P phrases

# Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



Full text of H-Statements referred to under sections 2 and 3.

## 16.2 Training Advice

Regular safety training.

## 16.3 Recommended Restriction on Use

Only for professional/research user.

## Section 1. IDENTIFICATION

### 1.1 Product Identifier

Commercial Product Name: RNase A Solution

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product form: Laboratory chemical mixture

Relevant identified uses: For research use only, not for diagnostic use.

Uses advised against:

-----

### 1.3 Details of the supplier of the safety data sheet

Company: Favorgen Biotech Corp.

Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2<sup>nd</sup> Road, Ping Tung 908126, TAIWAN

Phone Number: +886-8-762-1829

### 1.4 Emergency telephone number

+886-8-762-1829

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

No hazardous substance as specified in Regulation (EC) No 1272/2008.

### 2.2 Label elements

Does not need labelling as hazardous.

### 2.3 Other hazards

Not applicable.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical: Ribonuclease A from bovine pancreas CAS No.: 9001-99-4

Concentration: -----

## Section 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### If inhaled

Supply fresh air.

#### In case of skin contact

Remove contaminated clothing. Rinse skin with water/shower.

#### In case of eye contact

Rinse out with plenty of water.

#### If swallowed

Consult a doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

## Section 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

All extinguishers can be used.

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

None.

### 5.3 Advice for firefighters

No explosion hazard.

### 5.4 Additional Information

---

## Section 6. ACCIDENTAL RELEASE MEASURE

### 6.1 Personal precautions, protective equipment, and emergency procedures

Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not allow mixture to enter ground water system.

### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### 6.4 Reference to other sections

---

## Section 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear recommended Personal Protective Equipment.

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

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

For research use only.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Components with limit values that require monitoring at the workplace: Not required.

### 8.2 Exposure controls

Good ventilation and exhaust system in the workplace, and the floor has drainage and washing facilities, which can resist the erosion of chemicals. Must maintain the highest level of cleanliness in the workplace.

#### Personal protective equipment

**Eye/face protection:** Safety glasses. Used to prevent splash hazards. Government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Recommended to avoid contamination with these hazards.

**Hand protection:** Protective gloves, use for short times chemical resistant latex gloves with code EN 374-3 level 1.

**Respiratory protection:** Not necessary, if the workplace is well-ventilated.

**Personal Hygiene:** Wash hands before breaks and at the end of work. Handle in accordance with good industrial hygiene and safety practice.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance: liquid/Odor: odorless

**9.2 Other information**

---

**Section 10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

No data available.

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature). Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

No data available

**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

No information available

**Section 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Acute toxicity	Not Classified
Skin corrosion/irritation	Not Classified
Serious eye damage/irritation	Not Classified
Respiratory or skin sensitization	Not Classified
Germ cell mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive toxicity	Not Classified
Specific target organ toxicity (STOT) – single exposure	Not Classified
Specific target organ toxicity (STOT) – repeated exposure	Not Classified
Aspiration hazard	Not Classified

**11.2 Information on other hazards**

No data available.

**Section 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

This substance contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Endocrine disrupting properties**

No data available.

**12.7 Other adverse effects**

No data available.

### Section 13. DISPOSAL CONSIDERATIONS

Refer to local regulations.

#### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulation.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

### Section 14. TRANSPORT INFORMATION

No dangerous goods according to transport regulations

#### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IMDG: Not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

#### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

#### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

#### 14.6 Special precautions for user

None.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not Applicable.

#### Further information

Not classified as dangerous in transport regulations.

### Section 15. REGULATIONS INFORMATION

#### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No.1907/2006.

#### 15.2 Chemical safety assessment

Not necessary.

### Section 16. REGULATIONS INFORMATION

#### 16.1 List of R, H and P phrases

Full text of H-Statements referred to under sections 2 and 3.

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

Only for professional/research user.