

Version: 202506

Material Safety Data Sheet

FavorPrep™ Plant Genomic DNA Extraction HE Mini Kit

| Cat. No.: | FAPG1030 (4 preps) | FAPG1033 (50 preps) | FAPG1034 (100 preps) |
|---------------------------|-------------------------------|--------------------------------|---------------------------------|
| Contents | | | |
| PGB1 Buffer | 5 ml | 50 ml | 100 ml |
| PGB2 Buffer | 2 ml | 25 ml | 50 ml |
| Wash Buffer (Concentrate) | 3 ml | 17.5 ml | 35 ml |
| Elution Buffer | 0.5 ml | 5 ml | 7 ml |
| RNase A Solution | 75 µl | 900 µl | 900 µl × 2 |

Favorgen Biotech Corp.

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

Phone Number: +886-8-762-1829

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<https://www.favorgen.com/>

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



Section 1. IDENTIFICATION

1.1 Product Identifier

Commercial Product Name: **PGB1 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:

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 2nd 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

| | |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 2 |
|-----------------------------------|------------|

GHS hazard pictograms:



GHS07

Signal word: **WARNING**

Hazard statement(s)

H319

Causes serious eye irritation.

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P305 + P351 + P338

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

P337 + P313

If eye irritation persists: 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:

Cetyltrimethylammonium Bromide

CAS No.: 57-09-0

Concentration:

1- <3.5%

Classification:

H319, Eye Irritation 2

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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

No data available

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.

5.3 Advice for firefighters

Wear self-contained breathing equipment and protective suit.

5.4 Additional Information

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: None

Ingredients with limit values that require monitoring at the workplace: The product does not contain any

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relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

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: colorless/Odor: characteristic/Vapor pressure at 20°C (68°F): 23 hPa (17.3 mm Hg)/Density at 20°C (68°F): ~1 g/cm³ (~8.345 lbs/gal)/Solvent content: Water: 87.9%

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) |
|--|-----------------|----------------------|-----------------------|
| Cetyltrimethylammonium Bromide CAS No.: 57-09-0 | 20,500 mg/kg | No data available | No data available |

Skin corrosion/irritation

Skin irritation/ Irritating to eyes

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

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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

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

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.

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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. OTHER 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: **PGB2 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:

1.3 Details of the supplier of the safety data sheet
Company: Favourgen Biotech Corp.
Address: Ping-Tung Agricultural Biotechnology Park No. 8-1, Yuanxi 2nd 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 2 |

GHS hazard pictograms:



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 |
| P270 | Do not eat, drink or smoke when using this product |

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| | |
|--------------------|---|
| P273 | Avoid release to the environment |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P330 | Rinse mouth |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician |
| P332 + P313 | IF SKIN irritation occurs: Get medical advice/attention. |
| 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 |

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: | Guanidine hydrochloride | CAS No.: 50-01-1 |
| Concentration: | 36~50% | |
| Classification: | H302, Acute oral Tox. 4 H315, Skin Irritation 2 H319, Eye Irritation 2 | |

| | | |
|-----------------|--|--------------------|
| Chemical: | Polyoxyethylene sorbitan monolaurate (Tween® 20) | CAS No.: 9005-64-5 |
| Concentration: | 1~10% | |
| 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

H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life.

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.

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5.4 Additional Information

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: None

Chemical: Guanidine hydrochloride

CAS No.: 50-01-1

NIOSH: not listed

OSHA: not listed

Chemical: Polyoxyethylene sorbitan monolaurate

CAS No.: 9005-64-5

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.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: liquid/Color: slightly yellow/Odor: odorless/pH: 4.2~5.3

9.2 Other information

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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 | 475-907 mg/kg | 2000 mg/kg | [4h] 3181-7655 µg/m ³ |
| Polyoxyethylene sorbitan monolaurate CAS No.: 9005-64-5 | No data available | No data available | No data available |

Skin corrosion/irritation

Skin irritation/ Irritating to eyes

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.

Chemical: guanidine hydrochloride

CAS No.: 50-01-1

LC50leuciscus idus/96h: 1759 mg/L

WGK (DE): 1 WGK No.: 0788

Storage class (VCI): 12

Chemical: polyoxyethylene sorbitan monolaurate (Tween® 20)

CAS No.: 9005-64-5

WGK (DE): 1

Storage class (VCI): 10-11

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

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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

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. OTHER 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.

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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

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 2nd 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

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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:

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.

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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.

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.

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According to Regulation (EC) No 1907/2006



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

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 2nd Road, Ping Tung 908126, TAIWAN

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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

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.

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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: 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

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



| | |
|---|----------------|
| 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: -

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.

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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: 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 2nd 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:

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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.

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006



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.