

## Material Safety Data Sheet

### FavorPrep<sup>™</sup> RNA Stabilization Solution

Contents	Cat. No.:	FRSS1080	FRSS1084
	RNA Stabilization Solution	5 ml	100 ml

**Favorgen Biotech Corp.**

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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: RNA Stabilization Solution

### 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

## Section 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Hazard identification Hazard classes/categories

Acute oral toxicity	Category 4
Skin burns/eye damage	Category 1
Aquatic Chronic	Category 3

GHS hazard pictograms:



GHS05



GHS07

Signal word: **DANGER**

Hazard statement(s)

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

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.

P273

Avoid release to the environment.

P280

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

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P303 + P361 + P353

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

### 2.2 Label elements

According to section 1.5.2 of Annex I to CLP

GHS symbol



GHS05



GHS07

**DANGER**

Hazard contents

Guanidinium thiocyanate, 20~50%, CAS-No. 593-84-0

### 2.3 Other hazards

Not applicable

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## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances or 3.2 Mixtures

Chemical: **Guanidinium thiocyanate**  
Concentration: 20~50%  
Classification: H302, Acute oral Tox. 4,  
H314, Skin Irrit/Eye Irrit. 1,  
H412, 3

CAS No.: 593-84-0

## 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

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

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

Suitable Extinguishing media: water foam carbon dioxide (CO<sub>2</sub>) dry powder; All extinguishers can be used.

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

None.

### 5.3 Advice for firefighters

No specific fire or explosion hazard.

### 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

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## 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 workplace control parameters

Contains no substances with occupational exposure limit values.

#### Hazardous components without workplace control parameters

Ingredients: guanidinium thiocyanate

CAS-No.: 593-84-0

### 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: clear/Odor: odorless/pH: 7.0~7.5

### 9.2 Other information

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## Section 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

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

### 10.2 Chemical stability

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

### 10.3 Possibility of hazardous reactions

**Note:** Thiocyanates can develop poisonous gas in contact with strong acids. Keep away from oxidizing agents, and acidic or alkaline.

### 10.4 Conditions to avoid

Not necessary.

### 10.5 Incompatible materials

Note: Avoid contact with strong acids or alkaline.

### 10.6 Hazardous decomposition products

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

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## Section 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Harmful if swallowed

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50 (Rat)
Guanidinium thiocyanate CAS No.: 593-84-0	1,578 mg/kg	2,926 mg/kg	29.26 mg/l Exposure time: 4 h/ vapor

Skin corrosion/irritation

Skin irritation

Serious eye damage/irritation

Causes eye damage

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.

Guanidinium thiocyanate

CAS No.: 593-84-0LC50

leuciscus 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

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No additional 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

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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.

### 16.3 Recommended Restriction on Use

Only for professional/research user.