

# Material Safety Data Sheet

Revision Date: 16-Feb-2016



## Product and Company Information

Product Name	<i>TransZol Plant</i>
Cat. No.	ET121
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

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### The following TransGen products are included:

TP I buffer

TP II buffer

RNA Dissolving Solution

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# Material Safety Data Sheet

Revision Date: 16-Feb-2016



## 1. Product and Company Information

Product Name TP I buffer  
Cat. No. GR101-11  
Company TransGen Biotech Co., Ltd.  
Technical Phone +86-400-898-0321  
Fax +86-10-57815011  
E-mail Address trans@transgen.com.cn

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## 2. Hazards Identification

GHS-Classification  
Signal word: Danger



### Health hazard

Acute oral toxicity	Category 4
Acute Inhalation toxicity -Vapours	Category 4
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ systemic toxicity (repeated exposure)	Category 2

Hazard statements: H302 - Harmful if swallowed  
H332 - Harmful if inhaled  
H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects

### Precautionary statements

P310 - Immediately call a POISON CENTRE or doctor/physician

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P301 + P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P260 - Do not breathe dust or mist  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P264 - Wash hands thoroughly after handling  
P391 - Collect spillage  
P273 - Avoid release to the environment.

#### **Potential health effects**

**Eyes** Causes burns. Risk of serious damage to eyes.  
**Skin** Causes burns. Irritating to skin. May cause sensitisation by skin contact.  
**Inhalation** Harmful by inhalation.  
**Ingestion** Harmful if swallowed.

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### **3. Composition**

Chemical Name	CAS-No	Weight %
2-Mercaptoethanol	60-24-2	20
Sodium azide	26628-22-8	0.5

We recommend handling all chemicals with caution. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.

### **4. First Aid Measures**

General advice In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
Skin contact Wash off immediately with plenty of water for at least 15 minutes.  
Inhalation Move to fresh air.

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Ingestion                      Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Notes to physician      Treat symptomatically.

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## 5. Fire-Fighting Measures

Suitable extinguishing media      Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical

Special protective equipment for firefighters      Wear self-contained breathing apparatus and protective suit.

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## 6. Accidental Release Measures

Personal precautions                      Use personal protective equipment.

Methods for cleaning up                      Soak up with inert absorbent material.

Environmental precautions                      Prevent further leakage or spillage if safe to do so.

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## 7. Handling and Storage

Handling                                      Always wear recommended Personal Protective Equipment. No special handling advice required.

Storage                                      Keep containers tightly closed in a cool, well-ventilated place.

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## 8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (STEL)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
2-Mercaptoethanol	none	none	none	none
Sodium azide	0.1 mg/m <sup>3</sup>	none	none	none

## 9. Physical and Chemical Properties

General Information

Form: liquid

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Water solubility: soluble

Others: No information available.

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## 10. Stability and Reactivity

Stability	Stable under normal conditions
Materials to avoid	Strong oxidizing agents. Strong acids. Isocyanates. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.
Polymerization	None under normal processing.

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## 11. Toxicological Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
2-Mercaptoethanol	244 mg/kg (Oral)	no data available	250 ppm/8hrs
Sodium azide	27 mg/kg (Oral)	no data available	no data available

Principle Routes of Exposure/  
Potential Health effects

Eyes	Causes burns Risk of serious damage to eyes
Skin	Causes burns Irritating to skin. May cause sensitisation by skin contact.
Inhalation	Harmful by inhalation.
Ingestion	Harmful if swallowed.
Carcinogenic effects	None.
Mutagenic effects	None.
Reproductive toxicity	None.

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## 12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	No information available.
Biodegradation	No information available.
Bioaccumulation	No information available.

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## 13. Disposal Considerations

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Dispose of in accordance with local regulations.

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#### **14. Transport Information**

IATA

Proper shipping name      Toxic liquid, organic, n.o.s. (thioglycol solution)

Hazard class                      6.1

Subsidiary Class                No information available

Packing group                    II

UN-No                                UN2810

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#### **15. Regulatory Information**

International Inventories	Complies
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#### **16. Other Information**

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE

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**End of Safety Data Sheet**

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# Material Safety Data Sheet

Revision Date: 16-Feb-2016



## 1. Product and Company Information

Product Name TP II buffer  
Cat. No. GR101-12  
Company TransGen Biotech Co., Ltd.  
Technical Phone +86-400-898-0321  
Fax +86-10-57815011  
E-mail Address trans@transgen.com.cn

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## 2. Hazards Identification

GHS-Classification  
Signal word: Danger



Hazard statements: H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H314 - Causes severe skin burns and eye damage.  
H341 - Suspected of causing genetic defects  
H373 - May cause damage to organs through prolonged or repeated exposure

### Precautionary statements

P261- Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/ physician.

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## 3. Composition

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Chemical Name	CAS-No	Weight %
Phenol	108-95-2	>50
Tris (hydroxymethyl) aminomethane	77-86-1	<10

We recommend handling all chemicals with caution.

#### 4. First Aid Measures

General advice	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move to fresh air.
Ingestion	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Notes to physician    Treat symptomatically.

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#### 5. Fire-Fighting Measures

Suitable extinguishing media	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.

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#### 6. Accidental Release Measures

Personal precautions	Use personal protective equipment.
Methods for cleaning up	Soak up with inert absorbent material.
Environmental precautions	Prevent further leakage or spillage if safe to do so.

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#### 7. Handling and Storage

Handling	Always wear recommended Personal Protective Equipment. No special handling advice required.
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Storage

Keep containers tightly closed in a cool, well-ventilated place.

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## 8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (STEL)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Phenol	2 ppm 7.8 mg/m <sup>3</sup>	none	none	none

## 9. Physical and Chemical Properties

General Information

Form: liquid

Water solubility: soluble

Others: No information available.

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## 10. Stability and Reactivity

Stability Stable under normal conditions

Materials to avoid Strong oxidizing agents.

Polymerization None under normal processing.

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## 11. Toxicological Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Phenol	317 mg/kg (Rat)	no data available	316 mg/m <sup>3</sup> (Rat)

Principle Routes of Exposure/

Potential Health effects

Eyes

Causes eye burns.

Skin

Toxic in contact with skin. Causes burns. Components of the product may be absorbed into the body through the skin.

Inhalation

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

Ingestion

Toxic if swallowed. Causes burns.

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Carcinogenic effects	None.
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Mutagenic effects	None.
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Reproductive toxicity	None.
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## 12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	No information available.
Biodegradation	No information available.
Bioaccumulation	No information available.

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## 13. Disposal Considerations

Dispose of in accordance with local regulations.

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## 14. Transport Information

IATA	
Proper shipping name	Phenol solution
Hazard class	6.1
Subsidiary Class	No information available
Packing group	II
UN-No	UN2821

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## 15. Regulatory Information

International Inventories	Complies
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## 16. Other Information

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**End of Safety Data Sheet**

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# Material Safety Data Sheet

Revision Date: 16-Feb-2016



## 1. Product and Company Information

Product Name	RNA Dissolving Solution
Cat. No.	GQ101-01
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

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## 2. Hazards Identification

Not hazardous

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## 3. Composition

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

## 4. First Aid Measures

General advice	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move to fresh air.
Ingestion	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Not an expected route of exposure.
Notes to physician	Treat symptomatically.

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## 5. Fire-Fighting Measures

Suitable extinguishing media	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.

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## 6. Accidental Release Measures

Personal precautions	Use personal protective equipment.
Methods for cleaning up	Soak up with inert absorbent material.
Environmental precautions	Prevent further leakage or spillage if safe to do so.

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## 7. Handling and Storage

Precautions for safe handling	Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	Keep in a dry, cool and well-ventilated place.

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## 8. Exposure Controls/Personal Protection

Exposure limits: We are not aware of any national exposure limit.

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## 9. Physical and Chemical Properties

General Information

Form:	Liquid
Water solubility:	Soluble
Others:	No information available.

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## 10. Stability and Reactivity

Stability	Stable under normal conditions
Materials to avoid	no data available
Hazardous decomposition	no data available

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## 11. Toxicological Information

Acute toxicity - No information available.

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Principle Routes of Exposure/ Potential Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May be harmful by inhalation.
Ingestion	May be harmful if swallowed.
Carcinogenic effects	No information available.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Sensitization	No information available.

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## 12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	No information available.
Biodegradation	No information available.
Bioaccumulation	No information available.

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## 13. Disposal Considerations

Dispose of in accordance with local regulations.

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## 14. Transport Information

IATA	Not dangerous goods
Proper shipping name	Not classified as dangerous in the meaning of transport regulations
Hazard class	none
Subsidiary Class	none
Packing group	none
UN-No	none

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## 15. Regulatory Information

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## 16. Other Information

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**End of Safety Data Sheet**