

Material Safety Data Sheet

Revision Date: 1-June-2016



Product and Company Information

Product Name	<i>BloodZol</i>
Cat. No.	EE131
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

The following TransGen products are included:

Red Cell Lysis Buffer (RCL)

Lysis Buffer 3 (LB3)

Elution Buffer (EB)

Proteinase K

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Revision Date: 1-June-2016



1. Product and Company Information

Product Name Red Cell Lysis Buffer (RCL)
Cat. No. GA101-11
Company TransGen Biotech Co., Ltd.
Technical Phone +86-400-898-0321
Fax +86-010-57815011
E-mail Address trans@transgen.com.cn

2. Hazards Identification

Not hazardous

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.

3. Composition

This kit consist of Hazardous/Non-hazardous Components

Chemical Name	CAS-No	Weight %
Ammonium chloride	12125-02-9	0.1-1.0

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.
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Notes to physician	Treat symptomatically.
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5. Fire-Fighting Measures

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

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.

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 properly labeled containers.

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Ammonium chloride	10 mg/m ³	none	none	none

9. Physical and Chemical Properties

General Information

Form: Liquid

Water solubility: soluble

Others: No information available.

10.Stability and Reactivity

Stability	Stable under normal conditions
Materials to avoid	Peroxides. sodium hypochlorite. Halogenated compounds.
Hazardous decomposition	No information available
Products polymerization	Hazardous polymerisation does not occur

11.Toxicological Information

Acute toxicity - Component Information

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)
Ammonium chloride	1410 mg/kg (Rat)	No data available	No data available

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.

12.Ecological Information

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

13.Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

IATA

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

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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1. Product and Company Information

Product Name	Lysis Buffer 3 (LB3)
Cat. No.	GA101-12
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

2. Hazards Identification

GHS - Classification

Signal Word: Warning



Hazard statements: H302 – Harmful if swallowed.
H315 - Causes skin irritation.
H319- Causes serious eye irritation.

Precautionary statements:

P280 - Wear protective gloves/protective clothing/eye protection/face 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.
P321 - Specific treatment (see on this label).
P362 - Take off contaminated clothing and wash before reuse.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P501- Dispose of contents/container in accordance with local /regional/ national/ international regulations.

Potential health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May be harmful in contact with skin.

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Inhalation	Harmful by inhalation.
Ingestion	May be harmful if swallowed.

3. Composition

Chemical Name	CAS-No	Weight %
guanidinium chloride	50-01-1	25-50

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.

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

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

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.

7. Handling and Storage

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

Storage Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (STEL)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Guanidinium chloride	none	none	none	none

9. Physical and Chemical Properties

General Information

Form: liquid

Color: transparent

Water solubility: soluble

Others: No information available.

10.Stability and Reactivity

Stability Stable under normal conditions

Materials to avoid Strong oxidising agents.

Polymerization None under normal processing.

11.Toxicological Information

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)
Guanidinium chloride	475 mg/kg (Rat)	no data available	no data available

Principle Routes of Exposure/
Potential Health effects

Eyes May cause eye irritation with susceptible persons.

Skin	May be harmful in contact with skin.
Inhalation	Harmful by inhalation.
Ingestion	May be harmful if swallowed.
Carcinogenic effects	None.
Mutagenic effects	None.
Reproductive toxicity	None.

12. Ecological Information

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

13. Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

IATA	
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

15. Regulatory Information

International Inventories	Complies
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16. Other Information

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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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1. Product and Company Information

Product Name	Elution Buffer (EB)
Cat. No.	GC101-03
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

2. Hazards Identification

Not hazardous

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.

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.
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Notes to physician	Treat symptomatically.
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5. Fire-Fighting Measures

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

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.

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.

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
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Water solubility:	Soluble
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Others:	No information available.
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10. Stability and Reactivity

Stability	Stable under normal conditions
Materials to avoid	No dangerous reaction known under conditions of normal use.
Hazardous decomposition	no data available

11. Toxicological Information

Acute toxicity - No information available.

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.

12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	No information available.
Biodegradation	Inherently biodegradable.
Bioaccumulation	Does not bioaccumulate.

13. Disposal Considerations

Dispose of in accordance with local regulations.

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

15. Regulatory Information

International Inventories	Complies
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16. Other Information

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1. Product and Company Information

Product Name Proteinase K
Cat. No. GE201-01
Company TransGen Biotech Co., Ltd.
Technical Phone +86-400-898-0321
Fax +86-10-57815011
E-mail Address trans@transgen.com.cn

2. Hazards Identification

GHS - Classification

Signal Word: Danger



Health hazard

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitisation	Category 1

Hazard statements: H315 - Causes skin irritation.
H319- Causes serious eye irritation.
H334- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician

Potential acute health effects

Eyes Irritating to eyes.

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Skin	Irritating to skin.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

3. Composition

Chemical Name	CAS-No	Weight %
Proteinase, tritirachium album serine	39450-01-6	1-2.5

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.

5. Fire-Fighting Measures

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

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.

7. Handling and Storage

Handling	Always wear recommended Personal Protective Equipment. No special handling advice required.
Storage	Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (STEL)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Proteinase, tritirachium album serine	none	none	none	none

9. Physical and Chemical Properties

General Information

Form: liquid

Color: transparent

Water solubility: soluble

Others: No information available.

10. Stability and Reactivity

Stability	Stable under normal conditions
Materials to avoid	Strong oxidising agents.
Polymerization	None under normal processing.

11. Toxicological Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Proteinase, tritirachium album serine	no data available	no data available	no data available

Principle Routes of Exposure/
Potential Health effects

Eyes	Irritating to eyes.
Skin	Irritating to skin.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Carcinogenic effects	None.
Mutagenic effects	None.
Reproductive toxicity	None.

12. Ecological Information

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

13. Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

IATA

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

15. Regulatory Information

International Inventories	Complies
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16. Other Information

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