

03.09.2020

Kit components

Product code	Description
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1708304	Starter Kit
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Components:

1610374	Precision Plus Protein Dual Color Standards
1610376	Precision Plus Protein Western-C Standards
1610380	StrepTactin-HRP Conjugate 0.3 ml
1610732	10X Tris/Glycine/SDS Buffer
1610737	2X Laemmli Sample Buffer
1620260	Immun-Blot® LF PVDF
1560093	Macro-Prep t-Butyl HIC Media
4569033	Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels
1620172	Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane
1704158	Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane
1704159	Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 24.06.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** *Precision Plus Protein Dual Color Standards*
- **Article number:** 1610374, 1610374S, 1610394, 10022171, 1610374EDU, 4307147, 1610374TGX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 5 H333 May be harmful if inhaled.
Skin Corr. 3 H316 Causes mild skin irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** Not Applicable
- **Signal word** Warning
- **Hazard statements**
H333 May be harmful if inhaled.
H316 Causes mild skin irritation.
- **Precautionary statements**
P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**

CAS: 56-81-5 EINECS: 200-289-5	glycerol	Acute Tox. 5, H303; Acute Tox. 5, H333	20-35%
CAS: 151-21-3 EINECS: 205-788-1	sodium dodecyl sulphate	Flam. Sol. 2, H228 Acute Tox. 3, H301; Acute Tox. 3, H311 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-2.5%

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· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· 8.1 Control parameters

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

WSH Long-term value: 10 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.

· **Breathing equipment:** Not required.

· **Protection of hands:** Protective gloves.

· **Material of gloves** Synthetic gloves

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Blue

· **Odour:** Rotten

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 6.8

· **Change in condition**

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 100 °C

· **Flash point:** > 100 °C

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 400 °C

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

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· Explosion limits:	
Lower:	0.9 Vol %
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	30.0 %
Water:	66.3 %
Solids content:	3.7 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
May be harmful if inhaled.

· LD/LC50 values that are relevant for classification:

56-81-5 glycerol

Oral	LD50	4,090 mg/kg (mouse) 12,600 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (Rabbit)

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Trade name: Precision Plus Protein Dual Color Standards

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Inhalative	LC50/4 h	>30 mg/l (Rat)
151-21-3 sodium dodecyl sulphate		
Oral	LD50	1,288 mg/kg (rat)
Dermal	LD50	580 mg/kg (Rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes mild skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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Trade name: Precision Plus Protein Dual Color Standards

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SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name	
· ADR	Not Reguated
	Not Reguated
· ADN, IMDG, IATA	Not Reguated
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Not Reguated
· 14.4 Packing group	
· ADR, IMDG, IATA	Not Reguated
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Not Reguated

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	20-35

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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Trade name: Precision Plus Protein Dual Color Standards

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SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental Health and Safety.

· **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 2: Flammable solids – Category 2

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 5: Acute toxicity - oral – Category 5

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Skin Corr. 3: Skin corrosion/irritation – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** *Precision Plus Protein Western-C Standards*
- **Article number:** 1610376, 1610376S, 1610399, 10008763, 10008764, 10007300, 10008760, 10022175
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 5 H333 May be harmful if inhaled.
Skin Corr. 3 H316 Causes mild skin irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** Not Applicable
- **Signal word** Warning
- **Hazard statements**
H333 May be harmful if inhaled.
H316 Causes mild skin irritation.
- **Precautionary statements**
P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 56-81-5 EINECS: 200-289-5	glycerol	Acute Tox. 5, H303; Acute Tox. 5, H333	20-35%
CAS: 151-21-3 EINECS: 205-788-1	sodium dodecyl sulphate	Flam. Sol. 2, H228 Acute Tox. 3, H301; Acute Tox. 3, H311 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-2.5%

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Trade name: Precision Plus Protein Western-C Standards

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· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

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Trade name: Precision Plus Protein Western-C Standards

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· 8.1 Control parameters

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

WSH Long-term value: 10 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls

· **Personal protective equipment**

· **General protective and hygienic measures** Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not necessary if room is well-ventilated.

· **Protection of hands:** Protective gloves.

· **Material of gloves** Synthetic gloves

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

· **pH-value at 20 °C:** 6.8

· **Change in condition**

Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	100 °C

· **Flash point:** > 100 °C

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 400 °C

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

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Trade name: Precision Plus Protein Western-C Standards

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· Explosion limits:	
Lower:	0.9 Vol %
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	30.0 %
Water:	66.1 %
Solids content:	3.8 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- **Acute toxicity**
May be harmful if inhaled.

LD/LC50 values that are relevant for classification:

56-81-5 glycerol

Oral	LD50	4,090 mg/kg (mouse) 12,600 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (Rabbit)

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Trade name: Precision Plus Protein Western-C Standards

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Inhalative	LC50/4 h	>30 mg/l (Rat)
151-21-3 sodium dodecyl sulphate		
Oral	LD50	1,288 mg/kg (rat)
Dermal	LD50	580 mg/kg (Rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes mild skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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Trade name: Precision Plus Protein Western-C Standards

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SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name	
· ADR	Not Reguated
	Not Reguated
· ADN, IMDG, IATA	Not Reguated
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Not Reguated
· 14.4 Packing group	
· ADR, IMDG, IATA	Not Reguated
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Reguated

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	20-35

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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Printing date 03.09.2020

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Trade name: Precision Plus Protein Western-C Standards

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental Health and Safety.

· **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 2: Flammable solids – Category 2

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 5: Acute toxicity - oral – Category 5

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Skin Corr. 3: Skin corrosion/irritation – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** **StrepTactin-HRP Conjugate 0.3 ml**
- **Article number:** 1610380, 1610380EDU, 1610381, 10009196, 10022135, 100022152, 10022188
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
ProClin 300
- **Hazard statements**
H317 May cause an allergic skin reaction.
- **Precautionary statements**
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 - P280 Wear protective gloves.
 - P362+P364 Take off contaminated clothing and wash it before reuse.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P321 Specific treatment (see on this label).
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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Safety data sheet according SS 586 : Part 3

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Trade name: StrepTactin-HRP Conjugate 0.3 ml

(Contd. of page 1)

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

· CAS No. Description:

7732-18-5 water

· Identification number(s):

· **EC number:** 231-791-2

· 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 7558-79-4 EINECS: 231-448-7	disodium hydrogenorthophosphate Acute Tox. 3, H311 Acute Tox. 4, H332	0.1-1%
	ProClin 300 Consisting of: 55965-84-9 reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (3%) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Skin Corr. 1B, H314 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Sens. 1, H317	0.025-<0.06%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

· 4.1 Description of first aid measures

· **General information** Immediately remove any clothing soiled by the product.

· After inhalation

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact

Generally the product does not irritate the skin.

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

· **After eye contact** Rinse opened eye for several minutes under running water.· **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Fire-fighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

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Trade name: StrepTactin-HRP Conjugate 0.3 ml

(Contd. of page 2)

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.

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Safety data sheet

according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

Trade name: StrepTactin-HRP Conjugate 0.3 ml

(Contd. of page 3)

- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

· pH-value at 20 °C: 6.8

· Change in condition

Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C

· **Flash point:** Not applicable
Not determined.

· **Flammability (solid, gaseous)** Not applicable.

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: 23 hPa

· Density at 20 °C: 1.05 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

· Solubility in / Miscibility with

Water: Fully miscible

· **Partition coefficient: n-octanol/water:** Not determined.

· Viscosity:

dynamic at 20 °C:	0.952 mPas
kinematic:	Not determined.

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Trade name: StrepTactin-HRP Conjugate 0.3 ml

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· Solvent content:	
Water:	98.3 %
Solids content:	1.6 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Safety data sheet

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Trade name: StrepTactin-HRP Conjugate 0.3 ml

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- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, ADN, IMDG, IATA**

Not Reguated

- **14.2 UN proper shipping name**

- **ADR**

Not Reguated

Not Reguated

- **ADN, IMDG, IATA**

Not Reguated

- **14.3 Transport hazard class(es)**

- **ADR, ADN, IMDG, IATA**

- **Class**

Not Reguated

- **14.4 Packing group**

- **ADR, IMDG, IATA**

Not Reguated

- **14.5 Environmental hazards:**

- **Marine pollutant:**

No

- **14.6 Special precautions for user**

Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

- **Transport/Additional information:**

Not dangerous according to the above specifications.

- **UN "Model Regulation":**

Not Reguated

SECTION 15: Regulatory information

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

- **Poisons Act - Schedule 1**

None of the ingredients is listed.

- **Poisons Act - Schedule 2, Group II**

None of the ingredients is listed.

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Safety data sheet

according SS 586 : Part 3

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Trade name: StrepTactin-HRP Conjugate 0.3 ml

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· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations
· Water hazard class: Generally not hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity - dermal – Category 3

Acute Tox. 4: Acute toxicity - inhalation – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· * Data compared to the previous version altered.

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 24.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** **10X Tris/Glycine/SDS Buffer**
- **Article number:** 1610732, 9701906, 1610772, 1610732EDU, 1610772EDU, 10021723
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Not applicable.
- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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Printing date 03.09.2020

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Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 1)

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

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Safety data sheet

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Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 2)

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

Breathing equipment: Not required.

Protection of hands: Protective gloves.

Material of gloves: Synthetic gloves

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Light yellow
Odour:	Odourless
Odour threshold:	Not determined.

pH-value at 20 °C: 8.3

Change in condition

Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	100 °C

Flash point: Not applicable
Not determined.

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Self igniting: Product is not selfigniting.

Explosive properties: Not determined.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 20 °C: 23 hPa

Density at 20 °C: 0.98915 g/cm³

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible

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Safety data sheet

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Revision: 24.07.2020

Trade name: 10X Tris/Glycine/SDS Buffer

(Contd. of page 3)

- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 dynamic: Not determined.
 kinematic: Not determined.
- **Solvent content:**
 Water: 81.4 %
- **Solids content:** 18.6 %
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

56-40-6 glycine

Oral	LD50	7,930 mg/kg (rat)
Dermal	LD50	5,200 mg/kg (rat)

77-86-1 Tris(hydroxymethyl)aminomethane

Oral	LD50	5,900 mg/kg (Rat)
Dermal	LD50	>5,000 mg/kg (Rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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Trade name: 10X Tris/Glycine/SDS Buffer

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· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

SECTION 14: Transport information

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Not Reguated |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA | Not Reguated
Not Reguated
Not Reguated |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Not Reguated |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Not Reguated |

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Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

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Trade name: 10X Tris/Glycine/SDS Buffer

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- | | |
|--|--|
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | Not Reguated |

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· National regulations

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

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Safety data sheet
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Trade name: 10X Tris/Glycine/SDS Buffer

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*LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**** Data compared to the previous version altered.**

SG

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 13.02.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** **2X Laemmli Sample Buffer**
- **Article number:** 1610737, 1610737EDU, 1610737XTU
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 5 H333 May be harmful if inhaled.
Skin Corr. 3 H316 Causes mild skin irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** Not Applicable
- **Signal word** Warning
- **Hazard statements**
H333 May be harmful if inhaled.
H316 Causes mild skin irritation.
- **Precautionary statements**
P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**

CAS: 56-81-5 EINECS: 200-289-5	glycerol	Acute Tox. 5, H303; Acute Tox. 5, H333	20-35%
CAS: 151-21-3 EINECS: 205-788-1	sodium dodecyl sulphate	Flam. Sol. 2, H228 Acute Tox. 3, H301; Acute Tox. 3, H311 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-2.5%

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Trade name: 2X Laemmli Sample Buffer

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· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

WSH Long-term value: 10 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.

· **Breathing equipment:** Not required.

· **Protection of hands:** Protective gloves.

· **Material of gloves:** Synthetic gloves

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Light blue

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 6.8

· **Change in condition**

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 100 °C

· **Flash point:** > 100 °C

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 400 °C

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

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Trade name: 2X Laemmli Sample Buffer

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· Explosion limits:	
Lower:	0.9 Vol %
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	26.3 %
Water:	70.8 %
· Solids content:	2.9 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
May be harmful if inhaled.

· LD/LC50 values that are relevant for classification:

56-81-5 glycerol

Oral	LD50	4,090 mg/kg (mouse) 12,600 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (Rabbit)

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Inhalative	LC50/4 h	>30 mg/l (Rat)
151-21-3 sodium dodecyl sulphate		
Oral	LD50	1,288 mg/kg (rat)
Dermal	LD50	580 mg/kg (Rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes mild skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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Trade name: 2X Laemmli Sample Buffer

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SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name	
· ADR	Not Reguated
	Not Reguated
· ADN, IMDG, IATA	Not Reguated
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Not Reguated
· 14.4 Packing group	
· ADR, IMDG, IATA	Not Reguated
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Reguated

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	20-35

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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Trade name: 2X Laemmli Sample Buffer

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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental Health and Safety.

- **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 2: Flammable solids – Category 2

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 5: Acute toxicity - oral – Category 5

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Skin Corr. 3: Skin corrosion/irritation – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- *** Data compared to the previous version altered.**

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 25.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** *Immun-Blot® LF PVDF*
- **Article number:** 1620260, 1620261, 1620262, 1620263, 1620264, 10019203, 10019204, 10019205, 10019206, 10019207
- **CAS Number:**
24937-79-9
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Laboratory chemicals*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924*
- phone: 65-6415-3188 fax: 65-6415-3189*
- **Information department:** *sales.singapore@bio-rad.com*
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** *Not Applicable*
- **Hazard pictograms** *Not Applicable*
- **Signal word** *Not Applicable*
- **Hazard statements** *Not Applicable*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**
24937-79-9 Polyvinylidene fluoride
- **Additional information:** *For the wording of the listed risk phrases refer to section 16.*

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** *No special measures required.*
- **After inhalation** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact** *Generally the product does not irritate the skin.*
- **After eye contact** *Rinse opened eye for several minutes under running water.*

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Safety data sheet

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Trade name: Immun-Blot® LF PVDF

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- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.

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Trade name: Immun-Blot® LF PVDF

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8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

Protection of hands: Protective gloves.

Material of gloves Synthetic gloves

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Solid.
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point:	230 °C
Initial boiling point and boiling range:	undetermined

Flash point: Not applicable
Not determined.

Flammability (solid, gaseous) Product is not flammable.

Decomposition temperature: Not determined.

Self igniting: Not determined.

Explosive properties: Not determined.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure: Not applicable.

Density: Not determined
Relative density: Not determined.
Vapour density: Not applicable.
Evaporation rate: Not applicable.

Solubility in / Miscibility with
Water: Fully miscible

Partition coefficient: n-octanol/water: Not determined.

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Trade name: Immun-Blot® LF PVDF

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· Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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Trade name: Immun-Blot® LF PVDF

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Not Reguated |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA | Not Reguated
Not Reguated
Not Reguated |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Not Reguated |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Not Reguated |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | No
No |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · Transport/Additional information: | Not dangerous according to the above specifications. |
| <ul style="list-style-type: none"> · UN "Model Regulation": | Not Reguated |

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Revision: 25.07.2020

Trade name: Immun-Blot® LF PVDF

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SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

Substance is not listed.

· Poisons Act - Schedule 2, Group II

Substance is not listed.

· Health Products Act - First Schedule - Psychotropic Substances

Substance is not listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I Substance is not listed.

· National regulations

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 15.08.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** **Macro-Prep t-Butyl HIC Media**
- **Article number:** 1560093, 1560092, 1560091, 1560090, 1580090, 9701981
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5	ethanol	Flam. Liq. 2, H225	5-10%
EINECS: 200-578-6			

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.

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Trade name: Macro-Prep t-Butyl HIC Media

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- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**

· Components with limit values that require monitoring at the workplace:	
64-17-5 ethanol	
PEL	Long-term value: 1880 mg/m ³ , 1000 ppm

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Trade name: Macro-Prep t-Butyl HIC Media

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WSH Long-term value: 1880 mg/m³, 1000 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.

· **Breathing equipment:** Not required.

· **Protection of hands:** Protective gloves.

· **Material of gloves:** Synthetic gloves

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Suspension

Colour: White

· **Odour:** Alcohol-like

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 78 °C

· **Flash point:** Not applicable
Not determined.

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 425 °C

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 0.98946 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

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Trade name: Macro-Prep t-Butyl HIC Media

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· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Dispersible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	8.4 %
Water:	51.6 %
Solids content:	40.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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Trade name: Macro-Prep t-Butyl HIC Media

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· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA | <p>Not Reguated
Not Reguated
Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | <p>No</p> |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | <p>Not applicable.</p> |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | <p>Not applicable.</p> |

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Trade name: Macro-Prep t-Butyl HIC Media

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- | | |
|--|--|
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | Not Reguated |

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	5-10

· Water hazard class: Generally not hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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Trade name: Macro-Prep t-Butyl HIC Media

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Flam. Liq. 2: Flammable liquids – Category 2

. * **Data compared to the previous version altered.**

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Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 11.08.2020

SECTION 1: Identification

1.1 Product identifier

Trade name: **Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels**

Article number:

4569033, 4569036, 4569031, 4569033S, 4569031S, 4569036S, 4561146, 4561144, 4569035, 4569035S, 4569039, 4569039S, 10019239, 10019240, 10020803, 10021003, 10017479, 10022988, 10022989, 10022990, 10022991, 10022992, 10022984, 10023596, 10027878, 10027879, 10027880, 10027881, 10027882, 10027883

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

No further relevant information available.

Application of the substance / the mixture Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924

phone: 65-6415-3188 fax: 65-6415-3189

Information department: sales.singapore@bio-rad.com

1.4 Emergency telephone number: 65-6415-3188

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Not Applicable

Hazard pictograms Not Applicable

Signal word Not Applicable

Hazard statements Not Applicable

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

CAS: 56-81-5	glycerol	Acute Tox. 5, H303; Acute Tox. 5, H333	2.5-5%
EINECS: 200-289-5			

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

4.1 Description of first aid measures

General information No special measures required.

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Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

(Contd. of page 1)

- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

(Contd. of page 2)

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

56-81-5 glycerol

WSH Long-term value: 10 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

· **Protection of hands:** Protective gloves.

· **Material of gloves:** Synthetic gloves

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Solid.
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

· **pH-value at 20 °C:** 6.5

· Change in condition

Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	undetermined

· **Flash point:** Not applicable
Not determined.

· **Flammability (solid, gaseous)** Not determined.

· **Ignition temperature:** 400 °C

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density:** Not determined

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Safety data sheet

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Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

(Contd. of page 3)

· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic:	Not applicable.
kinematic:	Not applicable.
· Solvent content: Organic solvents:	3.4 %
Water:	82.0 %
Solids content:	22.7 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

56-81-5 glycerol

Oral	LD50	4,090 mg/kg (mouse) 12,600 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	>30 mg/l (Rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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Safety data sheet

according SS 586 : Part 3

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Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

(Contd. of page 4)

- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA | <p>Not Reguated
Not Reguated
Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | <p>Not Reguated</p> |

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Safety data sheet

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Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

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· 14.4 Packing group · ADR, IMDG, IATA	Not Reguated
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Reguated

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	2.5-5

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

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Safety data sheet

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Printing date 03.09.2020

Revision: 11.08.2020

Trade name: Mini-PROTEAN TGX Any kD 8+1W, 10W, 12W, 15W, IPG Gels

(Contd. of page 6)

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 5: Acute toxicity - oral – Category 5

· *** Data compared to the previous version altered.**

SG

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane
- **Article number:**
1620172, 1620173, 1620174, 1620175, 1620176, 1620177, 1620255, 1704153, 1704154, 4307573, 10017732, 10017731
- **CAS Number:**
24937-79-9
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- phone: 65-6415-3188 fax: 65-6415-3189
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**
24937-79-9 Polyvinylidene fluoride
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.

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Safety data sheet

according SS 586 : Part 3

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Revision: 29.07.2020

Trade name: Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane

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- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 3)

Safety data sheet

according SS 586 : Part 3

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Trade name: Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane

(Contd. of page 2)

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

Protection of hands: Protective gloves.

Material of gloves: Synthetic gloves

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form:	Solid.
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point:	230 °C
Initial boiling point and boiling range:	undetermined

Flash point: Not applicable
Not determined.

Flammability (solid, gaseous) Product is not flammable.

Decomposition temperature: Not determined.

Self igniting: Not determined.

Explosive properties: Not determined.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure: Not applicable.

Density: Not determined

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with

Water: Fully miscible

Partition coefficient: n-octanol/water: Not determined.

(Contd. on page 4)

Safety data sheet according SS 586 : Part 3

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Trade name: Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane

(Contd. of page 3)

- | | |
|---|---|
| <ul style="list-style-type: none"> · Viscosity: <li style="padding-left: 20px;">dynamic: <li style="padding-left: 20px;">kinematic: | <p>Not applicable.</p> <p>Not applicable.</p> |
| <ul style="list-style-type: none"> · Solids content: | <p>100.0 %</p> |
| <ul style="list-style-type: none"> · 9.2 Other information | <p>No further relevant information available.</p> |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Safety data sheet

according SS 586 : Part 3

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Revision: 29.07.2020

Trade name: Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane

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- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, ADN, IMDG, IATA**

Not Reguated

- **14.2 UN proper shipping name**

- **ADR**

Not Reguated

Not Reguated

- **ADN, IMDG, IATA**

Not Reguated

- **14.3 Transport hazard class(es)**

- **ADR, ADN, IMDG, IATA**

- **Class**

Not Reguated

- **14.4 Packing group**

- **ADR, IMDG, IATA**

Not Reguated

- **14.5 Environmental hazards:**

- **Marine pollutant:**

No

- **14.6 Special precautions for user**

Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

- **Transport/Additional information:**

Not dangerous according to the above specifications.

- **UN "Model Regulation":**

Not Reguated

SECTION 15: Regulatory information

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

- **Poisons Act - Schedule 1**

Substance is not listed.

- **Poisons Act - Schedule 2, Group II**

Substance is not listed.

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Trade name: Trans-Blot Transfer Pack, 0.2 µ PVDF Membrane

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· **Health Products Act - First Schedule - Psychotropic Substances**

Substance is not listed.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** Substance is not listed.

· **National regulations**

· **Water hazard class:** Generally not hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental Health and Safety.

· **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 28.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane
- **Article number:** 1704158, 10017733
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5	ethanol	Flam. Liq. 2, H225	10-20%
EINECS: 200-578-6			

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.

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Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

64-17-5 ethanol

PEL Long-term value: 1880 mg/m³, 1000 ppm

WSH Long-term value: 1880 mg/m³, 1000 ppm

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Safety data sheet

according SS 586 : Part 3

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Revision: 28.07.2020

Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures should be adhered to when handling chemicals.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid on inert carrier material

Colour: White

· Odour: Odourless

· Odour threshold: Not determined.

· pH-value at 20 °C: 8.9

· Change in condition

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 78 °C

· Flash point: 23 - 60 °C

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 425 °C

· Decomposition temperature: Not determined.

· Self igniting: Product is not selfigniting.

· Explosive properties: Not determined.

· Explosion limits:

Lower: 3.5 Vol %

Upper: 15 Vol %

· Vapour pressure at 20 °C: 59 hPa

· Density at 20 °C: 1.65 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

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Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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· Solubility in / Miscibility with Water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	15.3 %
Water:	77.3 %
Solids content:	7.4 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

77-86-1 Tris(hydroxymethyl)aminomethane

Oral	LD50	5,900 mg/kg (Rat)
Dermal	LD50	>5,000 mg/kg (Rat)

67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA | <p>Not Reguated
Not Reguated
Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | <p>Not Reguated</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p>Not Reguated</p> |

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Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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- | | |
|--|-----------------|
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Not Reguated |

SECTION 15: Regulatory information

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

- **Poisons Act - Schedule 1**

None of the ingredients is listed.

- **Poisons Act - Schedule 2, Group II**

None of the ingredients is listed.

- **Health Products Act - First Schedule - Psychotropic Substances**

None of the ingredients is listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **National regulations**

- **Technical instructions (air):**

Class	Share in %
I	0.1-1
NK	10-<20

- **Water hazard class:** Generally not hazardous for water.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental Health and Safety.

- **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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Trade name: Trans-Blot Transfer Pack, 0.2 µ Mini Nitrocellulose Membrane

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EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2

• *** Data compared to the previous version altered.**

SG

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** *Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane*
- **Article number:** 1704159, 1704159EDU
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5	ethanol	Flam. Liq. 2, H225	10-20%
EINECS: 200-578-6			
	Nitrocellulose membrane	Flam. Sol. 1, H228	2.5-5%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After eye contact** Rinse opened eye for several minutes under running water.

(Contd. on page 2)

Safety data sheet

according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

Trade name: Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane

(Contd. of page 1)

- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**

Components with limit values that require monitoring at the workplace:
64-17-5 ethanol

 PEL Long-term value: 1880 mg/m³, 1000 ppm

 WSH Long-term value: 1880 mg/m³, 1000 ppm

(Contd. on page 3)

Safety data sheet

according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

Trade name: Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane

(Contd. of page 2)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures should be adhered to when handling chemicals.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid on inert carrier material

Colour: White

· Odour: Alcohol-like

· Odour threshold: Not determined.

· pH-value at 20 °C: 8.9

· Change in condition

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 78 °C

· Flash point: Not applicable
Not determined.

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 425 °C

· Decomposition temperature: Not determined.

· Self igniting: Product is not selfigniting.

· Explosive properties: Not determined.

· Explosion limits:

Lower: 3.5 Vol %

Upper: 15 Vol %

· Vapour pressure at 20 °C: 59 hPa

· Density at 20 °C: 1.65 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

(Contd. on page 4)

Safety data sheet

according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

Trade name: Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane

(Contd. of page 3)

· Solubility in / Miscibility with Water:	Not miscible or difficult to mix
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	15.3 %
Water:	77.3 %
Solids content:	7.4 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

77-86-1 Tris(hydroxymethyl)aminomethane

Oral	LD50	5,900 mg/kg (Rat)
Dermal	LD50	>5,000 mg/kg (Rat)

Nitrocellulose membrane

Oral	LD50	>5,000 mg/kg (rat)
------	------	--------------------

67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

(Contd. on page 5)

Safety data sheet according SS 586 : Part 3

Printing date 03.09.2020

Revision: 29.07.2020

Trade name: Trans-Blot Turbo Transfer Pack, 0.2 µ Midi Nitrocellulose Membrane

(Contd. of page 4)

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

SECTION 14: Transport information

- | | |
|---|------------------------------|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Not Reguated |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR | Not Reguated
Not Reguated |
| <ul style="list-style-type: none"> · ADN, IMDG, IATA | Not Reguated |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Not Reguated |

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· 14.4 Packing group · ADR, IMDG, IATA	Not Reguated
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Not Reguated

SECTION 15: Regulatory information

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

· Poisons Act - Schedule 1

None of the ingredients is listed.

· Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

· Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
I	0.1-1
NK	10-<20

· Water hazard class: Generally not hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Sol. 1: Flammable solids – Category 1

• *** Data compared to the previous version altered.**

SG