

30.08.2020

10005446

Product code	Description
1761020	ProteOn Multiple Protein Interaction Kit
Components:	
10004488	ProteOn EDAC
10004489	ProteOn Sulfo-NHS
1762450	ProteOn TM Ethanolamine HCl
1762120	ProteOn TM Acetate Buffer, pH 4.0
10004718	ProteOn BLIP-WT
10004719	ProteOn TEM-R243/S130
10004720	ProteOn TEM-R243/S235
10004723	ProteOn TEM-TE

ProteOn TEM-S130/S235

Kit components



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

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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 13.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn EDAC

· Article number: 10004488

• CAS Number: 25952-53-8 • EC number: 247-361-2

Index number: 585-580-05-X

· 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

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:

25952-53-8 N-(3-Dimethylaminopropyl)-N-ethylcarbodiimide hydrochloride

- · Identification number(s):
- · EC number: 247-361-2
- · Index number: 585-580-05-X
- · Additonal information: For the wording of the listed risk phrases refer to section 16.

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Trade name: ProteOn EDAC

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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.
- · 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

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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- · 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.
- · 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

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SECTION 9: Physical and chemical properties				
· 9.1 Information on basic physical a	nd chemical properties			
· General Information	The state of the s			
· Appearance:				
Form:	Solid.			
Colour:	Light yellow			
· Odour:	Odourless			
· Odour threshold:	Not determined.			
· pH-value:	Not applicable.			
· Change in condition				
Melting point/freezing point:	115 ℃			
Initial boiling point and boiling ra	nge: 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.			

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Trade name: ProteOn EDAC

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· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not applicable. Not applicable.
Solids content: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

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Trade name: ProteOn EDAC

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- · 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.

14.1 UN-Number		
ADR, ADN, IMDG, IATA	Not Reguated	
14.2 UN proper shipping name	3	
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 I	of Marpol	
and the IBC Code	Not applicable.	
UN "Model Regulation":	Not Reguated	





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Trade name: ProteOn EDAC

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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

EINECS: European Inventory of Existing Commercial Chemical Substances

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.

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Printing date 30.08.2020 Revision: 10.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn Sulfo-NHS

· Article number: 10004489

· CAS Number: 106627-54-7

· 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:

106627-54-7 N-Hydroxysulfosuccinimide Sodium Salt

· 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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- · 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: ProteOn Sulfo-NHS

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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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

9.1 Information on basic physical and	chemical properties	
General Information		
Appearance:	B 4	
Form:	Powder	
Colour:	White	
Odour three holds	Odourless	
Odour threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Melting point/freezing point:	250 °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: ProteOn Sulfo-NHS

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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 (carcinogenity, 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: ProteOn Sulfo-NHS

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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.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

ECTION 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 li	of Marpol
and the IBC Code	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Not Reguated

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Trade name: ProteOn Sulfo-NHS

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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

SG





Printing date 30.08.2020 Revision: 13.08.2020

SECTION 1: Identification

- · 1.1 Product identifier
- Trade name: ProteOn™ Ethanolamine HCl
- · Article number: 1762450, 10004049
- · 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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Trade name: ProteOn™ Ethanolamine HCl

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• 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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Trade name: ProteOn™ Ethanolamine HCl

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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.

- · Breathing equipment: Not required.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · Penetration time of glove material

The exact break trough 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 chemic	car properties
 9.1 Information on basic physical and c General Information Appearance: 	chemical properties
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
Odour threshold:	Not determined.
· pH-value at 20 °C:	8.5
· Change in condition Melting point/freezing point: Initial boiling point and boiling range:	undetermined : undetermined
· Flash point:	Not applicable Not determined.
Flammability (solid, gaseous)	Not applicable.
Ignition temperature:	385 °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:	1.00097 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

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Trade name: ProteOn™ Ethanolamine HCl

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· Solubility in / Miscibility with

Water: Fully miscible

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

· Viscosity:

dynamic: Not determined. kinematic: Not determined.

· Solvent content:

Water: 90.3 %

• 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 13.08.2020

Trade name: ProteOn™ Ethanolamine HCl

(Contd. of page 4)

- · 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.

14.1 UN-Number	
ADR, ADN, IMDG, IATA	Not Reguated
4.2 UN proper shipping name	
ADR	Not Reguated
	Not Reguated
ADN, IMDG, IATA	Not Reguated
4.3 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
4.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex li	of Marpol
and the IBC Code	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
JN "Model Regulation":	Not Reguated





Printing date 30.08.2020 Revision: 13.08.2020

Trade name: ProteOn™ Ethanolamine HCl

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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

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

SG



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

SECTION 1: Identification

- · 1.1 Product identifier
- Trade name: ProteOn™ Acetate Buffer, pH 4.0
- · Article number: 1762120, 10003368
- · 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

- · 3.1 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: 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.

(Contd. on page 2)



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn™ Acetate Buffer, pH 4.0

(Contd. of page 1)

- · 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.
- 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.

(Contd. on page 3)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn™ Acetate Buffer, pH 4.0

(Contd. of page 2)

- · 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

SECTION 9: Physical and chemical properties

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

· Density at 20 °C:

· Relative density

· 9.1 Information on basic physical a · General Information	and chemical properties
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value at 20 °C:	4
· Change in condition	
Melting point/freezing point:	0 °C
Initial boiling point and boiling ra	nge: undetermined
· 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

0.99989 g/cm3

Not determined.

(Contd. on page 4)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn™ Acetate Buffer, pH 4.0

	(Contd. of page	ge 3)
· Vapour density · Evaporation rate	Not determined. Not determined.	
· Solubility in / Miscibility with Water:	Fully miscible	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity: dynamic: kinematic:	Not determined. Not determined.	
· Solvent content: Water:	99.9 %	
Solids content: · 9.2 Other information	0.1 % 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn™ Acetate Buffer, pH 4.0

(Contd. of page 4)

- · 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

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	
· 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 and the IBC Code	of Marpol Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
	(Contd. on page





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn™ Acetate Buffer, pH 4.0

(Contd. of page 5)

· 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: 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

* Data compared to the previous version altered.

SC



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 11.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn BLIP-WT

· Article number: 10004718

· 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

- · 3.1 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: 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.

(Contd. on page 2)



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn BLIP-WT

(Contd. of page 1)

- · 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.
- 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.

(Contd. on page 3)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn BLIP-WT

(Contd. of page 2)

- · 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

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 trough 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 chemic	cal properties
9.1 Information on basic physical and of General Information Appearance:	chemical properties
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value at 20 °C:	8
· Change in condition Melting point/freezing point: Initial boiling point and boiling range:	0 °C : undetermined
· 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: Upper:	Not determined. Not determined.
· Vapour pressure at 20 °C:	23 hPa
Density at 20 °C: Relative density	1 g/cm³ Not determined.

(Contd. on page 4)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn BLIP-WT

	(Contd. of page 3)
· Vapour density · Evaporation rate	Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Water: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn BLIP-WT

(Contd. of page 4)

- · 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	
14.1 UN-Number ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA	Not Reguated Not Reguated 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 I and the IBC Code	I of Marpol Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Not Reguated





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn BLIP-WT

(Contd. of page 5)

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: 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

SG



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 11.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn TEM-R243/S130

· Article number: 10004719

· 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

- · 3.1 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: 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.

(Contd. on page 2)



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn TEM-R243/S130

(Contd. of page 1)

- · 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.
- 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.

(Contd. on page 3)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn TEM-R243/S130

(Contd. of page 2)

- · 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

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 trough 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 che	mical properties
 9.1 Information on basic physical ar General Information Appearance: 	nd chemical properties
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value at 20 °C:	8
· Change in condition Melting point/freezing point: Initial boiling point and boiling rar	0 °C nge: undetermined
· 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: Upper:	Not determined. Not determined.
· Vapour pressure at 20 °C:	23 hPa
Density at 20 °C: Relative density	1.00029 g/cm³ Not determined.

(Contd. on page 4)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn TEM-R243/S130

	(Contd. of page 3)
· Vapour density · Evaporation rate	Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Water: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn TEM-R243/S130

(Contd. of page 4)

- · 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	า
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name · ADR	Not Reguated Not Reguated
· ADN, IMDG, IATA · 14.3 Transport hazard class(es)	Not Reguated
· 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 and the IBC Code	t II of Marpol Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Reguated





Printing date 30.08.2020 Revision: 11.08.2020

Trade name: ProteOn TEM-R243/S130

(Contd. of page 5)

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: 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



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn TEM-R243/S235

· Article number: 10004720

· 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

- · 3.1 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: 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.

(Contd. on page 2)



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-R243/S235

(Contd. of page 1)

- · 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.
- 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.

(Contd. on page 3)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-R243/S235

(Contd. of page 2)

- · 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

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 trough 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 che	SECTION 9: Physical and chemical properties	
 9.1 Information on basic physical ar General Information Appearance: 	nd chemical properties	
Form:	Fluid	
Colour:	Colourless	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value at 20 °C:	8	
· Change in condition Melting point/freezing point: Initial boiling point and boiling ran	0 °C nge: undetermined	
· 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: Upper:	Not determined. Not determined.	
· Vapour pressure at 20 °C:	23 hPa	
Density at 20 °C: Relative density	1.00029 g/cm³ Not determined.	

(Contd. on page 4)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-R243/S235

	(Contd. of page 3)
· Vapour density · Evaporation rate	Not determined. Not determined.
Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Water: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-R243/S235

(Contd. of page 4)

- · 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	
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Not Reguated
· 14.2 UN proper shipping name · ADR	Not Reguated Not Reguated
· ADN, IMDG, IATA · 14.3 Transport hazard class(es)	Not Reguated
· 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 In and the IBC Code	l of Marpol Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Not Reguated





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-R243/S235

(Contd. of page 5)

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: 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



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

SECTION 1: Identification

· 1.1 Product identifier

· Trade name: ProteOn TEM-TE

· Article number: 10004723

· 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

- · 3.1 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: 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.

(Contd. on page 2)



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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-TE

(Contd. of page 1)

- · 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.
- 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.

(Contd. on page 3)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-TE

(Contd. of page 2)

- · 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

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 trough 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 chemic	
9.1 Information on basic physical and o	chemical properties
General Information	
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value at 20 ℃:	8
Change in condition	
Melting point/freezing point:	0 °C
Initial boiling point and boiling range	: undetermined
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:	1.00029 g/cm³
Relative density	Not determined.

(Contd. on page 4)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-TE

	(Contd. of page 3)
· Vapour density · Evaporation rate	Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Water: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

(Contd. on page 5)





Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-TE

(Contd. of page 4)

- · 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	
14.1 UN-Number ADR, ADN, IMDG, IATA	Not Reguated
14.2 UN proper shipping name ADR ADN, IMDG, IATA	Not Reguated Not Reguated 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 I and the IBC Code	I of Marpol Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Not Reguated





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Trade name: ProteOn TEM-TE

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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

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: 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



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

Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

SECTION 1: Identification

- · 1.1 Product identifier
- · Trade name: ProteOn TEM-S130/S235
- · Article number: 10005446
- · 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

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

- · 3.1 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: 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.

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Safety data sheet according SS 586 : Part 3

Printing date 30.08.2020 Revision: 14.08.2020

Trade name: ProteOn TEM-S130/S235

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- · 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.
- 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.

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Trade name: ProteOn TEM-S130/S235

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- · 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

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 trough 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 che	SECTION 9: Physical and chemical properties	
• 9.1 Information on basic physical a • General Information	nd chemical properties	
· Appearance:	Fluid	
Form: Colour:	Fiula Colourless	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value at 20 °C:	8	
· Change in condition Melting point/freezing point: Initial boiling point and boiling ra	0 °C nge: undetermined	
· 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: · Relative density	1 g/cm³ Not determined.	

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Trade name: ProteOn TEM-S130/S235

	(Contd. of page 3)
· Vapour density · Evaporation rate	Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Water: · 9.2 Other information	100.0 % 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 (carcinogenity, 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.

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Trade name: ProteOn TEM-S130/S235

(Contd. of page 4)

- · 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
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- · vPvB: Not applicable.
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