

Part Number: 8510, 8511

Veratox for Gliadin R5, Alert for Gliadin R5

This is a diagnostic test kit that is comprised of several individual components, each of which may have its own Safety Data Sheet. If a component does not have a Safety Data Sheet included here the item falls under Hazard Communication [1910.1200(b)(6)], *Articles*, and does not require a Safety Data Sheet.

Gliadin Extraction Additive is made from food grade material and does not require a SDS.

For any questions please contact Neogen Corporation.

The following Safety Data Sheets are included in this file:

Gliadin controls – 0, 2.5, 5, 10, 20, 40 ppm

Gliadin Conjugate Solution

K-Blue® Substrate

Red Stop Solution

PBS Foil Packets

Wash Buffer Concentrate

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name(s): **Gliadin Controls – 0, 2.5, 5, 10, 20, 40 ppm**
- Product Part Number(s): **Components of 8510, 8511**

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

- Use of the substance/preparation: For use with kits 8510 and 8511.
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Keep container tightly closed.
Do not breathe mist/vapors/fumes/spray.
Avoid prolonged contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008, WHMIS 2015 Hazardous Products Regulations, and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

SECTION 4 First aid measures (continued)

- Contact with skin
 - Remove contaminated clothing.
 - Wash affected area with plenty of soap and water.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Contaminated clothing should be laundered before reuse.
- Contact with eyes
 - If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
 - Irrigate eyes thoroughly while lifting eyelids.
 - Seek medical advice if necessary.
- Ingestion
 - Rinse mouth with water (do not swallow).
 - Never make an unconscious person vomit or drink fluids.
 - If medical advice is needed, have product container or label at hand.
- Inhalation
 - If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- May include carbon oxides.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid prolonged contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store refrigerated at temperatures between 2-8°C (35-46°F). Do not freeze.
- Keep container tightly closed.

7.3 Specific end use(s)

- For use with kits 8510 and 8511.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Glycerol (mist)	56-81-5	TWA	15 mg/m ³ (total); 5 mg/m ³ (resp)	USA-OSHA Table Z-1 Limits for Air Contaminants - 1910.1000

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear, colorless liquid
- Odor: No information available
- pH: No information available
- Melting Point/Range: Not applicable
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Soluble
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Do not freeze.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.
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SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
 - ATEmix = 13,333 mg/kg (oral)
 - Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Inhalation
 - Not a likely route of exposure. May cause respiratory irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
 - Carcinogenicity
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
 - Mutagenicity
 - No evidence of mutagenic effects.
 - Teratogenicity
 - No evidence of teratogenic effects.
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SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

SECTION 12 Ecological information (continued)

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
- On available data, substance is not harmful to the environment.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.6 Special precautions for user

- Not classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
 - ICAO UN No.: Not applicable
 - ICAO Hazard Class: Not applicable
 - ICAO Packing Group: Not applicable
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SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Not listed

SECTION 16 Other information

SDS Controls: *Containers not labeled for individual sale.*

Date of Preparation: August 2016

Revision: Rev. 0

Replaces: New issue

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name(s): **Gliadin R5 enzyme-labeled antibody conjugate**
- Product Part Number(s): **8510, 8511**

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

- Use of the substance/preparation: For use in Alert and Veratox kits.
- Use advised against: Do not use beyond expiration date. Do not mix reagents from one kit with reagents from a kit with a different serial number.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Keep container tightly closed.
Do not breathe mist/vapors/fumes/spray.
Avoid prolonged contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008, WHMIS 2015 Hazardous Products Regulations, and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

SECTION 4 First aid measures (continued)

- Contact with skin
Remove contaminated clothing.
Wash affected area with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Contaminated clothing should be laundered before reuse.
- Contact with eyes
If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
Irrigate eyes thoroughly while lifting eyelids.
Seek medical advice if necessary.
- Ingestion
Rinse mouth with water (do not swallow).
Never make an unconscious person vomit or drink fluids.
If medical advice is needed, have product container or label at hand.
- Inhalation
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- None known

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid prolonged contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store refrigerated at temperatures between 2-8°C (35-46°F). Do not freeze.
- Keep container tightly closed.

7.3 Specific end use(s)

- For use in Veratox kits.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear, brown liquid
- Odor: Slight to no odor
- pH: No information available
- Melting Point/Range: Not applicable
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Soluble
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Keep away from heat and sources of ignition.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- None known
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SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
 - Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Inhalation
 - Not a likely route of exposure. May cause respiratory irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
 - Carcinogenicity
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
 - Mutagenicity
 - No evidence of mutagenic effects.
 - Teratogenicity
 - No evidence of teratogenic effects.
-

SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
 - On available data, substance is not harmful to the environment.
-

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.6 Special precautions for user

- Not classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 15 Regulatory information (continued)

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Not listed

SECTION 16 Other information

SDS Gliadin R5 Conjugate: *Container not labeled for individual sale.*

Date of Preparation: August 2016

Revision: Rev. 0

Replaces: New issue

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **Substrate**
- Product Part Number(s): **308189, Used in various kits, not sold individually**

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

- Use of the substance/preparation: Intended for research and manufacturing use only.
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, MI 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (OSHA 29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements: see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Keep container tightly closed.
Do not breathe mist/vapors/fumes/spray.
Do not get in eyes, on skin, or on clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

This product is a mixture of the substances listed below with the addition of non-hazardous materials:

Chemical	Concentration	CAS No.	EC Number	R/H Phrases	Symbols
Proprietary	< 5%	n/a	n/a	H315, H319, H335,	GHS07,
Ingredient 1				H360	GHS08

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

- For full text of Hazard-statements see Section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
Remove contaminated clothing.
Wash affected area with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Contaminated clothing should be laundered before reuse.
- Contact with eyes
If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
Irrigate eyes thoroughly while lifting eyelids.
Seek medical advice if necessary.
- Ingestion
Rinse mouth with water (do not swallow).
Never make an unconscious person vomit or drink fluids.
If medical advice is needed, have product container or label at hand.
- Inhalation
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus.
- Wear protective clothing as per Section 8.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

SECTION 6 Accidental release measures (continued)

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store at temperatures not exceeding 8°C/46°F.
- Avoid direct exposure to sunlight.
- Store only in high quality colored plastic or amber glass bottles.
- Keep away from common metal ions (like iron).
- Avoid the use of rubber stoppers and bottle caps containing rubber rings.

7.3 Specific end use(s)

- Intended for research and manufacturing use only.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear to faint blue solution
- Odor: Odorless
- pH: Not applicable
- Melting Point/Range: Not applicable
- Boiling Point/Range: Not determined
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Completely soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available

SECTION 9 Physical and chemical properties (continued)

- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer.

9.2 Other information

- No information available
-

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Avoid direct exposure to sunlight.
- Keep away from heat and sources of ignition.

10.5 Incompatible materials

- Incompatible with some common metal ions (such as iron).
- Avoid the use of rubber stoppers and caps containing rubber rings.

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.
-

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for mixture
 - ATE_{mix} = 72,424 mg/kg
 - Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
 - Inhalation
 - Not a likely route of exposure. May cause irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
 - Carcinogenicity
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
 - Mutagenicity
 - No information available
 - Teratogenicity
 - No information available
-

SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

SECTION 12 Ecological information (continued)

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated
 - On available data, substance is not harmful to the environment
-

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, state, national, or international legislation.
- Do not discharge into drains or the environment; dispose to an authorized liquid waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.
-

SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.6 Special precautions for user

- Not classified

14.7 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.8 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

SECTION 14 Transport information (continued)

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

California Prop 65

WARNING: this product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Listed

SECTION 16 Other information

SDS-Enhanced K-Blue Substrate: *Not labeled for individual sale.*

Date of Preparation: June 2016

Revision: Rev. 02

Replaces: Rev. 01

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H360: May damage fertility or the unborn child.

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **Red Stop**
- Product Part Number: **301210, Used in various kits, not sold individually**

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

- Use of the substance/preparation: For use with ELISA kits
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Keep container tightly closed.
Do not breathe mist/vapors/fumes/spray.
Avoid contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008, WHMIS 2015 Hazardous Products Regulations, and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

SECTION 4 First aid measures (continued)

- Contact with skin
 - Remove contaminated clothing.
 - Wash affected area with plenty of soap and water.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Contaminated clothing should be laundered before reuse.
- Contact with eyes
 - If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
 - Irrigate eyes thoroughly while lifting eyelids.
 - Seek medical advice if necessary.
- Ingestion
 - Rinse mouth with water (do not swallow).
 - Never make an unconscious person vomit or drink fluids.
 - If medical advice is needed, have product container or label at hand.
- Inhalation
 - If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- May include carbon oxides.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store at temperatures not exceeding 8°C/46°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.

7.3 Specific end use(s)

- For use with ELISA kits

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- This product contains no substances >1% with occupational exposure limit values.

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear red liquid
- Odor: No information available
- pH: 8.7
- Melting Point/Range: Not applicable
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

SECTION 10 Stability and reactivity (continued)

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- None known

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
- ATEmix = 12,195 mg/kg (oral)
- Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Inhalation
 - Not a likely route of exposure. May cause irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
- Carcinogenicity
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
 - No evidence of mutagenic effects.
- Teratogenicity
 - No evidence of teratogenic effects.

SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
 - On available data, substance is not harmful to the environment.
-

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.6 Special precautions for user

- Not classified

14.7 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.8 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 15 Regulatory information (continued)

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory InformationSARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

15.4 Canadian Regulatory Information

- | | |
|-------------------------------------|------------|
| - Inventory Status | |
| Domestic Substances List (DSL) | Listed |
| Non-Domestic Substances List (NDSL) | Not listed |

SECTION 16 Other information

SDS Red Stop: *Not labeled for individual sale.*

Date of Preparation: June 2016

Revision: Rev. 02

Replaces: Rev. 01

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name(s): **Phosphate Buffered Saline (PBS) foil pack**
- Product Part Number(s): **Used in Various Kits**

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

- Use of the substance/preparation: For use in ELISA kits to prepare extraction solvent.
- Use advised against: Do not use after expiration date.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Do not breathe dust.
Avoid contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008, WHMIS 2015 Hazardous Products Regulations, and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
Remove contaminated clothing.
Wash affected area with plenty of soap and water.

SECTION 4 First aid measures (continued)

- If skin irritation or rash occurs: Get medical advice/attention.
Contaminated clothing should be laundered before reuse.
- Contact with eyes
If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
Irrigate eyes thoroughly while lifting eyelids.
Seek medical advice if necessary.
 - Ingestion
Rinse mouth with water (do not swallow).
Never make an unconscious person vomit or drink fluids.
If medical advice is needed, have product container or label at hand.
 - Inhalation
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor/physician if you feel unwell.
- 4.2 Most important symptoms and effects, both acute and delayed
- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.
- 4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically.
-

SECTION 5 Fire-fighting measures

- 5.1 Extinguishing media
- In case of fire: use foam, carbon dioxide or dry agent for extinction.
- 5.2 Special hazards arising from the substance or mixture
- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
 - Decomposition products may include carbon oxides.
 - See Section 10.
- 5.3 Advice for firefighters
- Keep container(s) exposed to fire cool, by spraying with water.
 - Wear chemical protection suit and positive-pressure breathing apparatus.
 - Wear protective clothing as per Section 8.
- 5.4 Hazardous Combustion Products
- May include carbon oxides.
-

SECTION 6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources and use non-sparking tools.
 - Avoid raising dust.
 - Wear protective clothing as per Section 8.
 - Remove contaminated clothing and wash thoroughly after dealing with spillage.
- 6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses.
 - Avoid releasing to the environment.
- 6.3 Methods and material for containment and cleaning up
- Sweep up and shovel/collect for disposal.
 - Place in sealable containers and label them.
 - Ventilate the area and wash spill site after material pick-up is complete.
 - Dispose of contaminated materials and wastes in accordance with local/national/international regulations.
- 6.4 Reference to other sections
- See Section 7 for storage. For disposal, see Section 13.
-

SECTION 7 Handling and storage

- 7.1 Precautions for safe handling
- Do not breathe dust.
 - Avoid contact with skin and eyes.
 - Do not eat, drink, smoke, or apply cosmetics when using this product.

SECTION 7 Handling and storage (continued)

- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store 2-8°C. Do not freeze.
- Do not use after expiration date.
- Keep away from oxidizing substances.

7.3 Specific end use(s)

- For use in ELISA kits to prepare extraction solvent.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, NIOSH N95 (US) or type FFP1 (EN143) dust masks.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: White granular powder
- Odor: Odorless
- pH: 7.4, in 1L deionized or distilled water
- Melting Point/Range: No information available
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Soluble
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: Product is a powder
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

SECTION 10 Stability and reactivity (continued)

10.4 Conditions to avoid

- Do not freeze.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
- ATEmix = 3,846 mg/kg (oral)
- Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Inhalation
 - May cause irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
- Carcinogenicity
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
 - No evidence of mutagenic effects.
- Teratogenicity
 - No evidence of teratogenic effects.

SECTION 12 Ecological information

12.1 Toxicity

Sodium chloride

Toxicity to fish

LC₅₀ – *Lepomis macrochirus* (Bluegill) = 5840 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

EC₅₀ – *Daphnia magna* (Water flea) = 1661 mg/L-48h

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
- On available data, substance is not harmful to the environment.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.

SECTION 13 Disposal considerations (continued)

- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.6 Special precautions for user

- Not classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

SECTION 15 Regulatory information (continued)

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

State Right-to-Know

Massachusetts

Sodium phosphate dibasic, CAS No. 7558-79-4

New Jersey

Sodium phosphate dibasic, CAS No. 7558-79-4

Pennsylvania

Sodium phosphate dibasic, CAS No. 7558-79-4

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)

Listed

Non-Domestic Substances List (NDSL)

Not listed

SECTION 16 Other information

Date of Preparation: June 2016

Revision: Rev. 0

Replaces: New issue

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **Wash Buffer Concentrate**
- Product Part Number: **Used in various kits**

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

- Use of the substance/preparation: For use in various kits.
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases
None
- Precautionary Phrases
Keep container tightly closed.
Do not breathe mist/vapors/fumes/spray.
Avoid prolonged contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008, WHMIS 2015 Hazardous Products Regulations, and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

SECTION 4 First aid measures (continued)

- Contact with skin
 - Remove contaminated clothing.
 - Wash affected area with plenty of soap and water.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Contaminated clothing should be laundered before reuse.
- Contact with eyes
 - If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
 - Irrigate eyes thoroughly while lifting eyelids.
 - Seek medical advice if necessary.
- Ingestion
 - Rinse mouth with water (do not swallow).
 - Never make an unconscious person vomit or drink fluids.
 - If medical advice is needed, have product container or label at hand.
- Inhalation
 - If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- May include carbon oxides.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store at temperatures not exceeding 8°C/46°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.

7.3 Specific end use(s)

- For use with various kits.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- This product contains no substances >1% with occupational exposure limit values

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear, colorless liquid
- Odor: No information available
- pH: 7.5
- Melting Point/Range: Not applicable
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

SECTION 10 Stability and reactivity (continued)

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Keep away from heat and sources of ignition.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
- ATEmix = 16,129 mg/kg (oral)
- Contact with skin
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Contact with eyes
 - May cause redness and irritation in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Ingestion
 - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Inhalation
 - Not a likely route of exposure. May cause irritation in sensitive individuals if inhaled.
 - Based on available data, the classification criteria are not met.
- Carcinogenicity
 - Listed as Group 2B, Possibly carcinogenic to humans, in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112: Methylmercury compounds (Thimerosal), CAS No. 54-64-8
 - Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
 - Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
 - No evidence of mutagenic effects.
- Teratogenicity
 - No information available

SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
 - On available data, substance is not harmful to the environment.
-

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

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

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 15 Regulatory information (continued)

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory InformationSARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

State Right-to-Know

Massachusetts

Sodium phosphate dibasic, CAS No. 7558-79-4

New Jersey

Sodium phosphate dibasic, CAS No. 7558-79-4

Pennsylvania

Sodium phosphate dibasic, CAS No. 7558-79-4

California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects of other reproductive harm: Mercury compounds (Thimerosal), CAS No. 54-64-8

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Not listed

SECTION 16 Other information

Date of Preparation: June 2016

Revision: Rev. 0

Replaces: New issue

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