

**Part Number: 902085J**

## **BioKits Walnut Assay Kit**

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.

For any questions please contact Neogen Corporation.

The following Safety Data Sheets are included in this file:

Walnut Standards 1-5

Walnut Biotin

Avidin Peroxidase Conjugate

TMB Substrate

Wash Solution Concentrate

Diluent Concentrate Type 8

Stop Solution

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

### 1.1 Product identifier

- Product Name: **Walnut Standards 1-5**
- Product Part Number: **902085J**

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

- Use of the substance/preparation: For use with BioKit 902085J
- 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](mailto:foodsafety@neogen.com)

### 1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300  
Outside USA and Canada: +1 (703) 527-3887
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## 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 dust/mist/vapors/fumes.  
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 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, immediately wash out 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 victim 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.
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## 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

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- 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.
- Place in sealable container.
- Seal 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/mist/vapors/fumes.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke 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 BioKit 902085J

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## SECTION 8 Exposure controls/personal protection

### 8.1 Control parameters

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

### 8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- 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

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## SECTION 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance: Clear 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: 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

### 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.
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## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

- No experimental test data available for the mixture
  - ATEmix = 200,000 mg/kg (oral)
  - Contact with skin
    - May cause redness and irritation in sensitive individuals.
  - Contact with eyes
    - May cause redness and irritation in sensitive individuals.
  - Ingestion
    - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
  - Inhalation
    - Not a likely route of exposure. May cause irritation in sensitive individuals.
  - 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) 13<sup>th</sup> Report on Carcinogens.
    - Not listed in OSHA standard 1910.1003 Carcinogens.
  - Mutagenicity
    - No evidence of mutagenic effects.
  - Teratogenicity
    - No information available
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## SECTION 12 Ecological information

### 12.1 Toxicity

- This product contains no substances >1% with ecological toxicity values.

### 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.
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## 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.
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## 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
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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.

**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.

California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects and 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

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**SECTION 16 Other information**

Date of Preparation: January 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: **Walnut Biotin**
- Product Part Number: **902085J**

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

- Use of the substance/preparation: For use with BioKit 902085J
- 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](mailto: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 dust/mist/vapors/fumes.  
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 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.



## SECTION 4 First aid measures (continued)

- 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, immediately wash out 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 victim 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

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- 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.
- Place in sealable container.
- Seal 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/mist/vapors/fumes.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke 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 BioKit 902085J.

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## 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.
- Engineering controls should be provided to prevent the need for ventilation.
- 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

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## SECTION 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance: Clear pink 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: 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

### 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 = 263,158 mg/kg (oral)
  - Contact with skin  
May cause redness and irritation in sensitive individuals.
  - Contact with eyes  
May cause redness and irritation in sensitive individuals.
  - Ingestion  
Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
  - Inhalation  
Not a likely route of exposure. May cause irritation in sensitive individuals.
  - 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)  
Listed as Group 3, Not classifiable as to its carcinogenicity to humans, in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112: Hydrochloric Acid, CAS No. 7647-01-0  
Not listed in the National Toxicology Program (NTP) 13<sup>th</sup> 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

## 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.
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## 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.

### 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: 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

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## SECTION 16 Other information

Date of Preparation: January 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: **Avidin Peroxidase Conjugate**
- Product Part Number: **902085J, 902072T, 902061Y, 902070X**

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

- Use of the substance/preparation: For use with BioKits
- 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](mailto: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 dust/mist/vapors/fumes.  
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 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, immediately wash out 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 victim 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

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- 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.
- Place in sealable container.
- Seal 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/mist/vapors/fumes.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke 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 BioKits

---

## 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.
- Engineering controls should be provided to prevent the need for ventilation.
- 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 yellow 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: 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

### 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 = 263,158 mg/kg (oral)
  - Contact with skin  
May cause redness and irritation in sensitive individuals.
  - Contact with eyes  
May cause redness and irritation in sensitive individuals.
  - Ingestion  
Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
  - Inhalation  
Not a likely route of exposure. May cause irritation in sensitive individuals.
  - 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) 13<sup>th</sup> 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 contains no substances >1% with ecological toxicity values

### 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.
- 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 and 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

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## SECTION 16 Other information

Date of Preparation: January 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: **TMB Substrate**
- Product Part Number: **902085J, 902072T, 902061Y, 902070X**

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

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

### 1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Dako North America, Inc. for Neogen Corporation
- Address of Manufacturer: 620 Leshar Place  
Lansing, Michigan 48912  
USA
- Telephone: 517/372-9200
- Email: [foodsafety@neogen.com](mailto:foodsafety@neogen.com)

### 1.4 Emergency telephone number

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

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## SECTION 2 Hazards identification

### 2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Skin corrosion/irritation, Cat. 2, H315, Serious eye damage/irritation, Cat. 2A, H319, Toxic to reproduction, Cat. 1B, Specific target organ toxicity (single exposure), Cat. 3, H335, Specific target organ toxicity (repeated exposure), Cat. 2, H373

Classification (WHMIS 2015 HPR)

- Skin corrosion/irritation, Cat. 2, H315, Serious eye damage/irritation, Cat. 2A, H319, Toxic to reproduction, Cat. 1B, Specific target organ toxicity (single exposure), Cat. 3, H335, Specific target organ toxicity (repeated exposure), Cat. 2, H373

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

### 2.2 Label elements



GHS07



GHS08

- Signal Word: Danger
- Symbols: GHS07, GHS08
- Hazard phrases
  - Causes serious eye irritation.
  - Causes skin irritation.
  - May damage the unborn child.
  - May cause respiratory irritation.
  - May cause damage to organs through prolonged or repeated exposure.
- Precautionary Phrases
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Wear protective gloves, eye or face protection.
  - Use only outdoors or in a well-ventilated area.
  - Do not breathe vapor.
  - Wash hands thoroughly after handling.
  - Get medical attention if you feel unwell.
  - IF exposed or concerned: Get medical attention.
  - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
  - IF ON SKIN: Wash with plenty of soap and water. Take off contaminate clothing. Wash contaminated clothing before reuse.



## SECTION 2 Hazards identification (continued)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical attention.  
 Store locked up.  
 Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 2.3 Other hazards

- Prolonged or repeated contact may dry skin and cause irritation.

## 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.	H-Statements	Symbols
Propylene carbonate	5-10%	108-32-7	H319	GHS07
N-Methyl-2-pyrrolidone	5-10%	872-50-4	H315, H319, H335, H360	GHS07, GHS08
2,2'-oxybisethanol	1-5%	111-46-6	H302	GHS07

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

## SECTION 4 First aid measures

### 4.1 Description of first aid measures

- Contact with skin
  - Wash skin thoroughly with soap and water or use recognized skin cleanser.
  - Remove contaminated clothing and shoes.
  - Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
  - Continue to rinse for at least 10 minutes.
  - Get medical attention.
  - Wash clothing before reuse.
  - Clean shoes thoroughly before reuse.
- Contact with eyes
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
  - Check for and remove contact lenses. Continue to rinse for at least 10 minutes.
  - Get medical attention.
- Ingestion
  - Wash out mouth with water. Remove dentures, if any.
  - If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous.
  - Do not induce vomiting unless directed to do so by medical personnel.
  - If vomiting occurs, the head should be kept low so the vomit does not enter the lungs.
  - Get medical attention.
  - Never give anything by mouth to an unconscious person.
  - If unconscious, place in recovery position and get medical attention immediately.
  - Maintain an open airway.
  - Loosen tight clothing such as a collar, tie, belt or waistband.
- Inhalation
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.
  - If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
  - Get Medical attention.

## SECTION 4 First aid measures (continued)

If necessary, call a poison center or physician.

If unconscious, place in recovery position and get medical attention immediately.

Maintain an open airway.

Loosen tight clothing such as a collar, tie, belt or waistband.

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

### 4.2 Most important symptoms and effects, both acute and delayed

- Causes serious eye irritation.
- May cause respiratory irritation.
- Causes skin irritation. Defatting to the skin.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Treat symptomatically.
- No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

---

## 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

- In a fire or if heated, a pressure increase will occur and the container may burst.

### 5.3 Advice for firefighters

- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode.

### 5.4 Hazardous Decomposition Products

- May include carbon dioxide, carbon monoxide, and nitrogen oxides.

---

## SECTION 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- No action shall be taken involving any personal risk or without suitable training.
- Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental Precautions

- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

- Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

### 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

- Put on appropriate personal protective equipment (see Section 8).
- Avoid exposure - obtain special instructions before use.
- Avoid exposure during pregnancy.
- Do not handle until all safety precautions have been read and understood.
- Do not get in eyes or on skin or clothing.
- Do not breathe vapor or mist.
- Do not ingest.
- Use only with adequate ventilation.
- Wear appropriate respirator when ventilation is inadequate.
- Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
- Empty containers retain product residue and can be hazardous. Do not reuse container.
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Workers should wash hands and face before eating, drinking and smoking.
- Remove contaminated clothing and protective equipment before entering eating areas.
- See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

- Store at temperatures not exceeding 8°C/46°F. Keep cool.
- Store in accordance with local regulations.
- Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
- Store locked up.
- Keep container tightly closed and sealed until ready for use.
- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Do not store in unlabeled containers.
- Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- For use with Biokits

## SECTION 8 Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
N-Methyl-2-pyrrolidone	872-50-4	TWA	10 ppm (8 hrs)	Workplace Environmental Exposure Levels (WEEL) USA
2,2'-oxybisethanol	111-46-6	TWA	10 mg/m <sup>3</sup> (8 hrs)	Workplace Environmental Exposure Levels (WEEL) USA

### 8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved chemical respirator 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: Liquid
- Odor: Odorless
- pH: 5.1
- 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 in cold and hot water
- 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: No information available

### 9.2 Other information

- No information available
- 

## SECTION 10 Stability and reactivity

### 10.1 Reactivity

- No specific test data related to reactivity available for this product or its ingredients

### 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

- Protect from moisture.

### 10.5 Incompatible materials

- May react or be incompatible with oxidizing materials.

### 10.6 Hazardous Decomposition Products

- Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- 

## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

- ATEmix = 12457.7 mg/kg (oral)

#### **Propylene Carbonate**

LD<sub>50</sub> – oral-rat - >5000mg/kg

#### **N-Methyl-2-pyrrolidone**

LD<sub>50</sub> – dermal-rabbit – 8g/kg

LD<sub>50</sub> – oral-rat – 3914 mg/kg

#### **2,2'-oxybisethanol**

LD<sub>50</sub> – dermal-rabbit – 11890 mg/kg

LD<sub>50</sub> – oral-rat – 12000 mg/kg

- Contact with skin  
Adverse symptoms may include the following: irritation, redness, dryness, cracking, reduced fetal weight, increase in fetal deaths, skeletal malformations.
- Contact with eyes  
Adverse symptoms may include the following: pain or irritation, watering, redness
- Ingestion  
Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations

## SECTION 11 Toxicological information (continued)

- Inhalation  
Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
- Carcinogenicity  
Not listed in the National Toxicology Program (NTP) 13<sup>th</sup> 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  
May damage the unborn child.

## SECTION 12 Ecological information

### 12.1 Toxicity

#### Propylene carbonate

Acute EC<sub>50</sub> – >900 mg/L – Algae – 72h

Acute EC<sub>50</sub> – >1000 mg/L – Fish – 96h

#### N-Methyl-2-pyrrolidone

Acute LC<sub>50</sub> – 1.23 to 1.5 ppm Fresh water – Daphnia magna – 48h

Acute LC<sub>50</sub> – 832 ppm Fresh Water – Fish – Lepomis macrochirus – 96h

#### 2,2'-oxybisethanol

Acute LC<sub>50</sub> – 75200000 µg/L Fresh water – Fish – Pimephales promelas – 96h

### 12.2 Persistence and degradability

Ingredient	Test	Result	Dose	Inoculum
Propylene carbonate	-	97% - Readily – 14d	-	13.69 mg/L Activated sludge
2,2'-oxybisethanol	301A Ready Biodegradability DOC Die-Away Test	91.8% - 28d	-	-
Ingredient	Aquatic Half-life	Photolysis	Biodegradability	
Propylene carbonate	-	-	Readily	
2,2'-oxybisethanol	-	-	Readily	

### 12.3 Bioaccumulation Potential

Ingredient	LogP <sub>ow</sub>	BCF	Potential
Propylene carbonate	-0.41	-	low
N-Methyl-2-pyrrolidone	-0.46	-	low
2,2'-oxybisethanol	-1.98	100	low

### 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

- The generation of waste should be avoided or minimized wherever possible.
- Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
- Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- This material and its container must be disposed of in a safe way.
- Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
- Empty containers or liners may retain some product residues.
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### 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



## SECTION 14 Transport information (continued)

### 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.

### 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 following components are subject to reporting levels established by SARA Title III, Section 313: N-Methyl-2-pyrrolidone CAS No. 872-50-4

#### SARA 311/312

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

#### 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

N-Methyl-2-Pyrrolidone CAS No. 872-50-4

##### New Jersey

N-Methyl-2-Pyrrolidone CAS No. 872-50-4

##### Pennsylvania

N-Methyl-2-Pyrrolidone CAS No. 872-50-4

2,2'-oxybisethanol CAS No. 111-46-6

#### California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: N-Methyl-2-pyrrolidone CAS No. 872-50-4

### 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:  
Revision: Rev. 0  
Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H302: Harmful if swallowed. 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: **BioKits Wash Solution**
- Product Part Number: **902085J, 902072T, 902061Y, 902070X**

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

- Use of the substance/preparation: For use with BioKits
- 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](mailto: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 dust/mist/vapors/fumes.  
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 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, immediately wash out 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 victim 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

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- 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.
- Place in sealable container.
- Seal 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/mist/vapors/fumes.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke 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 30°C/86°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.

### 7.3 Specific end use(s)

- For use with BioKits

---

## 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.
- Engineering controls should be provided to prevent the need for ventilation.
- 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 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 in water
- 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

- 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 = 33,333 mg/kg (oral)
  - Contact with skin  
May cause redness and irritation in sensitive individuals.
  - Contact with eyes  
May cause redness and irritation in sensitive individuals.
  - Ingestion  
Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
  - Inhalation  
Not a likely route of exposure. May cause irritation in sensitive individuals.
  - Carcinogenicity  
Not listed in the National Toxicology Program (NTP) 13<sup>th</sup> 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 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

### 14.6 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.

### 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

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## SECTION 16 Other information

Date of Preparation: January 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: **Diluent Concentrate Type 8**
- Product Part Number: **902072T, 902070X, 902085J**

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

- Use of the substance/preparation: For use with BioKits
- 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](mailto: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 dust/mist/vapors/fumes.  
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 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, immediately wash out 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 victim to fresh air and keep at rest in a position 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

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- 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.
- Place in sealable container.
- Seal 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 dust/mist/vapors/fumes.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke 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 30°C/86°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.

### 7.3 Specific end use(s)

- For use with BioKits.

---

## SECTION 8 Exposure controls/personal protection

### 8.1 Control parameters

- This product contains no substance >1% with occupational exposure limits values.

### 8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- 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 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

## SECTION 9 Physical and chemical properties (continued)

### 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

- Decomposition products may include carbon oxides.
- 

## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

- No experimental test data available for the mixture
  - ATE<sub>mix</sub> = 41,667 mg/kg (oral)
  - Contact with skin
    - May cause redness and irritation in sensitive individuals.
  - Contact with eyes
    - May cause redness and irritation in sensitive individuals.
  - Ingestion
    - Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
  - Inhalation
    - Not a likely route of exposure. May cause irritation in sensitive individuals.
  - Carcinogenicity
    - Not listed in the National Toxicology Program (NTP) 13<sup>th</sup> Report on Carcinogens.
    - 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 OSHA standard 1910.1003 Carcinogens.
  - Mutagenicity
    - No information available for the mixture.
  - Teratogenicity
    - No information available for the mixture.
- 

## 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
-

## 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 and 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: January 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: **Stop Solution**
- Product Part Number: **902061Y, 902070X, 902085J, 902072T**

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

- Use of the substance/preparation: Stop solution for use with BioKits
- 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](mailto: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)

- Skin corrosion, Cat. 1B, Serious eye damage, Cat. 1

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

- Skin corr. 1B, H314

Classification (WHMIS 2015 HPR)

- Skin corrosion, Cat. 1B (H314), Serious eye damage, Cat. 1 (H318)

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

## 2.2 Label elements



GHS05

- Signal Word: Danger
- Symbols: GHS05
- Hazard phrases
  - Causes severe skin burns and eye damage.
  - Causes serious eye damage.
- Precautionary Phrases
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wash hands thoroughly after handling.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
  - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.
  - Wash contaminated clothing before reuse.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Store locked up.
  - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

## 2.3 Other hazards

- 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	H-Statements	Symbols
Phosphoric Acid	41%	7664-38-2	231-663-2	H314, H318	GHS05

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

---

## SECTION 4 First aid measures

### 4.1 Description of first aid measures

- General  
In case of doubt, or when symptoms persist, seek medical attention.  
Like any other chemical, this product should be treated with care, respect, and common sense.
- Contact with skin  
If on skin (or hair): Take off contaminated clothing immediately and rinse affected skin with plenty of water/shower.  
Contaminated clothing should be laundered before reuse.  
Immediately call a poison center or doctor/physician.
- Contact with eyes  
If substance has gotten into eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Irrigate eyes thoroughly while lifting eyelids.  
Get immediate medical advice/attention.
- Ingestion  
Rinse mouth with water (do not swallow).  
Never make an unconscious person vomit or drink fluids.  
Do NOT induce vomiting.  
Seek immediate medical attention.
- Inhalation  
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
Get medical attention if you feel unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

- Prolonged skin or eye contact may cause chemical burns.
- May cause burns to mouth and throat.
- May cause gastro-intestinal disturbances.
- Vapors or aerosols may cause irritation of eye, nose and respiratory tract.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

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## 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.
- Wear protective clothing as per Section 8.
- Smoke from fires is toxic. Take precautions to protect personnel from exposure.

### 5.4 Hazardous Combustion Products

- May include carbon oxides.

## SECTION 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Ensure adequate ventilation.
- Avoid breathing fume/gas/mist/vapors/spray.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

### 6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### 6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal 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.
- Avoid contact with skin, eyes and clothing.
- Do not eat, drink, or smoke 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)

- Stop solution for use with BioKits

## SECTION 8 Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Phosphoric acid	7664-38-2	TWA	1 mg/m <sup>3</sup>	USA-OSHA Table Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m <sup>3</sup>	USA-NIOSH Recommended Exposure Limits
		STEL	3 mg/m <sup>3</sup>	USA-NIOSH Recommended Exposure Limits
		TWA	1 mg/m <sup>3</sup>	USA-ACGIH Threshold Limit Values (TLV)
		STEL	3 mg/m <sup>3</sup>	USA-ACGIH Threshold Limit Values (TLV)
		WEL	1 mg/m <sup>3</sup>	UK long term
		WEL	2 mg/m <sup>3</sup>	UK short term

## SECTION 8 Exposure controls/personal protection (continued)

### 8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- 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

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## SECTION 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance: Clear, colorless solution
- 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 in water
- 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: No information available

### 9.2 Other information

- No information available

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## SECTION 10 Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with alkalis (strong bases) and metals.

### 10.4 Conditions to avoid

- Avoid contact with metals.

### 10.5 Incompatible materials

- Incompatible with alkalis (strong bases), sodium borohydride, nitromethane and metals.

### 10.6 Hazardous Decomposition Products

- No information available
-

## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

- Acute toxicity  
Based on available data, the classification criteria are not met.  
ATEmix = 3,704 mg/kg (oral)  
ATEmix = 6,667 mg/kg (dermal)
  - Contact with skin  
Skin Corrosion, Cat. 1B  
Classification based on calculation and concentration thresholds.  
Causes severe skin burns and blistering of the skin.
  - Contact with eyes  
Serious Eye Damage, Cat. 1  
Classification based on calculation and concentration thresholds.  
Causes redness and swelling.  
May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
  - Ingestion  
Causes damage and corrosion of the gastrointestinal tract.  
May cause damage to the stomach lining.  
May cause nausea/vomiting/diarrhea.  
May cause damage to the mucous membranes.
  - Inhalation  
May cause irritation in sensitive individuals.
  - Carcinogenicity  
Not listed in the National Toxicology Program (NTP) 13<sup>th</sup> 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 information available
- 

## SECTION 12 Ecological information

### 12.1 Toxicity

- No information available

### 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.
  - Water Hazard Class WGK 1 – Low Hazard (Germany)
- 

## 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.

## SECTION 13 Disposal considerations (continued)

### 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.

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## SECTION 14 Transport information



Corrosive

### 14.1 UN Number

- UN Number: 3264

### 14.2 UN Proper Shipping Name

- Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid solution)

### 14.3 Transport hazard class(es)

- 8

### 14.4 Packing group

- III

### 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: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid solution)
- DOT UN No.: 3264
- DOT Hazard Class: 8
- DOT Packing Group: III

### 14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid solution)
- ADR UN No.: 3264
- ADR Hazard Class: 8
- ADR Packing Group: III
- Tunnel Code: 3 (E)

### 14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid solution)
- IMDG UN No.: 3264
- IMDG Hazard Class: 8
- IMDG Packing Group: III

### 14.11 Air (ICAO/IATA)

- Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid solution)
- ICAO Un No.: 3264
- ICAO Hazard Class: 8
- ICAO Packing Group: III

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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.



**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

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

State Right-to-Know

## Massachusetts

Phosphoric Acid, CAS No. 7664-38-2

## New Jersey

Phosphoric Acid, CAS No. 7664-38-2

## Pennsylvania

Phosphoric Acid, CAS No. 7664-38-2

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**

Date of Preparation: January 2016

Revision: Rev. 0

Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage.

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.