



Kit SDS Cover Sheet

Product Name:

Item No(s):

Transport Information: *This kit contains Dangerous Goods component(s) which are being shipped under the Excepted Quantities exemption or as a Chemical kit (UN3316). For further information on individual components, please refer to the corresponding component SDS.*

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

Kit Components:

For product information, please contact your Neogen Corporation Representative.
For further information regarding this SDS, please contact SDS@neogen.com.



SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

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EIA Buffer

Revision 5
Revision date 2020-05-29

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

1.1. Product identifier

Product name	EIA Buffer
Product code	21014, 21328, 25000, 25111, 301276 (-B), 301277

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

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PC21] Laboratory chemicals;
Description	Intended for laboratory use only. Do not use components from one kit with any other kit.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshler Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

	24 hours: Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international) Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)
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Further information

	Manufactured By: Neogen Corporation 944 Nandino Blvd. Lexington, KY 40511-1205 U.S.A.
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	No Significant Hazard.
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2.2. Label elements

Hazard Statements	No Significant Hazard
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2.3. Other hazards

Other hazards	Contains material(s) which may damage fertility or the unborn child. Contains substance(s) which are hazardous to the environment.
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SECTION 3: Composition/information on ingredients

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3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Thimerosal		54-64-8	200-210-4		0 - 0.05%	Acute Tox. 2: H300+H330; Acute Tox. 1: H310; STOT RE 2: H373; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;

Description

	No components need to be disclosed according to the applicable regulations. Concentrations listed are not product specifications.
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Further information

	Full text of Hazard Statements listed in this Section is provided in Section 16.
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SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

	Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use extinguishing media appropriate to the surrounding fire conditions.
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5.2. Special hazards arising from the substance or mixture

	Contains substance(s) which are hazardous to the environment. Do not allow undiluted product to be released to ground water, water course or sewage system.
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5.3. Advice for firefighters

	Do not breathe vapor or spray mist. Wear suitable respiratory equipment when necessary.
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SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

	Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.
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6.2. Environmental precautions

	Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.
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6.3. Methods and material for containment and cleaning up

	Absorb spillage to prevent material damage. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.
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6.4. Reference to other sections

	See Section(s) 2, 8, and 13 for further information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing. Read the entire label and follow all use directions, restrictions, and precautions.
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7.2. Conditions for safe storage, including any incompatibilities

	Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.
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7.3. Specific end use(s)

	See Section(s) 1.2 for further information.
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Further information

	Refer to product label and/or package insert for additional information. Follow label instructions.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

	No occupational exposure limits known.
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8.2. Exposure controls

	
Appropriate engineering controls	Ensure adequate ventilation of the working area.
Individual protection measures	Use as appropriate: Protective equipment.
Eye / face protection	Use as appropriate: Suitable eye protection.
Skin protection - Hand protection	Use as appropriate: Chemical-resistant gloves made of any waterproof material.
Skin protection - Other	Use as appropriate: Protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.

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8.2. Exposure controls

Occupational exposure controls	Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.
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Further information

	Remove and wash contaminated clothing before reuse.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State	Liquid
Color	Clear
Odor	Odorless/Slight
Odor threshold	No data available
pH	No data available
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability limits	Not applicable.
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	Not applicable.
Oxidizing properties	No data available
Solubility	Soluble in water

9.2. Other information

VOC (Volatile organic compounds)	No data available
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SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
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10.4. Conditions to avoid

	Keep away from extreme temperatures.
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10.5. Incompatible materials

	No data available.
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10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. However, this product does contain substance(s) that are classified as hazardous. For more information, see Section 3.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. Listed by the International Agency for Research on Cancer (IARC) as a Group 2 substance: suspected of being a human carcinogen, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)]. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	Contains material(s) which may damage fertility or the unborn child.
STOT-single exposure	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	No Significant Hazard.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

See Section(s) 3 for further information.

11.1.3. Hazard Information

See Section(s) 2 and 3 for further information.

11.1.4. Toxicological information

No data available

11.1.5. Hazard Class

See Section(s) 2 and 14 for further information.

11.1.6. Classification Criteria

Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.

11.1.7. Information on likely routes of exposure

Eye contact. Skin contact. Ingestion. Inhalation.

11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

See Section(s) 4.2 for further information.

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

See Section(s) 4.2 for further information.

11.1.10. Interactive effects

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11.1.10. Interactive effects

No data available.

11.1.11. Absence of specific data

<1% of this mixture consists of ingredients of unknown acute toxicity.

11.1.12. Mixture versus substance information

See Section(s) 3 for further information.

11.1.13. Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

EIA Buffer No data available

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Contains substance(s) which are hazardous to the environment. Specific test data for the mixture is not available.

Further information

Keep out of lakes, ponds, or streams. Do not let product contaminate subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.

If empty: Do not reuse this container. Place in trash or offer for recycling, if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

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Revision date 2020-05-29**SECTION 14: Transport information****14.1. UN number**

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulations	Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.
Chemical Inventories/Right-to-Know Lists:	<p>--International--</p> <p>Basel Convention (Hazardous Waste): Not applicable.</p> <p>Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels.</p> <p>Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.</p> <p>Mercosur Agreement: Applicable.</p> <p>Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Rotterdam Convention: Annex III, (pesticide), [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].</p> <p>The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>--Asia and the ASEAN Nations--</p> <p>Catalog of Hazardous Chemicals (China): [2581, Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].</p> <p>Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.</p> <p>Air Pollution Control Law (Japan): Hazardous substance / Priority chemicals, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].</p> <p>Chemical Substances Control Law (Japan): Class I environmental release, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): This product contains no hazardous substances at or above published reporting levels.</p>

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

Poisonous and Deleterious Substances Act (Japan): Poisonous, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].

Soil Contamination Countermeasures Act (Japan): Class 2, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].

Water Pollution Control Law (Japan): Harmful substance, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].

Chemical Substances Subject to Permission (Korea): This product contains no hazardous substances at or above published reporting levels.

Restricted or Prohibited Substances (Korea): This product contains no hazardous substances at or above published reporting levels.

Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This product contains no hazardous substances at or above published reporting levels.

Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969):, Toxic substance, [Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%)].

Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.

Hazardous Substances Act (Thailand): This product contains no hazardous substances at or above published reporting levels.

Law on Chemicals (Vietnam): This product contains no hazardous substances at or above published reporting levels.

--Australia and New Zealand--.

Australian Dangerous Goods Code: Not applicable.

Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.

New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.

--European Union (EU) and the United Kingdom (UK)--.

Authorization List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.

Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels.

Article 95 of the Biocidal Products Regulation (BPR): Not applicable.

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.

New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.

Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.

Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels.

****California residents please note****.

WARNING: This product can expose you to chemicals, including Thimerosal (mercury compounds), CAS No. 54-64-8 (<0.05%), which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

EIA Buffer

Revision 5
Revision date 2020-05-29**SECTION 16: Other information****Other information**

Revision	This document differs from the previous version in the following areas: 1 - Product Use. 1 - Manufactured By: 9 - 9.2. Other information (Product Subcategory). 11 - Acute toxicity. 16 - Maximum content of VOC.
Acronyms	ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR). CAS No.: Chemical Abstracts Service. CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia). FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act. GHS: Globally Harmonized System. HCS 2012: Hazard Communication Standard (2012 revision). IATA: International Air Transport Association. ICAO: International Civil Aviation Organization. IMDG: International Maritime Dangerous Goods. LD: Lethal dose. OEL: Occupational exposure limit. OSHA: U.S. Occupational Safety and Health Administration. PEL: Permissible Exposure Limit. REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals. SVHC: Substance of very high concern. US DOT: United States Department of Transportation. VOC: Volatile Organic Compound. WEL: Workplace Exposure Limit.
Text of Hazard Statements in Section 3	Acute Tox. 2: H300+H330 - Fatal if swallowed or if inhaled Acute Tox. 1: H310 - Fatal in contact with skin. STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure . Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Further information

	<p>DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.</p> <p>Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.</p>
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SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

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Wash Buffer, 10X

Revision 3
Revision date 2020-05-29

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

1.1. Product identifier

Product name	Wash Buffer, 10X
Product code	25001, 25112, 301177

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

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PC21] Laboratory chemicals;
Description	Intended for laboratory use only. Do not use components from one kit with any other kit.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshler Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Further information

Manufactured By:
Neogen Corporation
944 Nandino Blvd.
Lexington, KY 40511-1205 U.S.A.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS No Significant Hazard.

2.2. Label elements

Hazard Statements No Significant Hazard

2.3. Other hazards

Other hazards Contains material(s) which may be harmful if swallowed.

SECTION 3: Composition/information on ingredients

Wash Buffer, 10X

Revision 3
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Description

No components need to be disclosed according to the applicable regulations.
Concentrations listed are not product specifications.

Further information

Full text of Hazard Statements listed in this Section is provided in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

5.2. Special hazards arising from the substance or mixture

Do not allow undiluted product to be released to ground water, water course or sewage system.

5.3. Advice for firefighters

Do not breathe vapor or spray mist. Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.

6.2. Environmental precautions

Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.

6.3. Methods and material for containment and cleaning up

Absorb spillage to prevent material damage. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

Wash Buffer, 10X

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6.4. Reference to other sections

See Section(s) 2, 8, and 13 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing.
Read the entire label and follow all use directions, restrictions, and precautions.

7.2. Conditions for safe storage, including any incompatibilities

Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.

7.3. Specific end use(s)

See Section(s) 1.2 for further information.

Further information

Refer to product label and/or package insert for additional information. Follow label instructions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limits known.

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the working area.

Individual protection measures

Use as appropriate: Protective equipment.

Eye / face protection

Use as appropriate: Suitable eye protection.

Skin protection - Hand protection

Use as appropriate: Chemical-resistant gloves made of any waterproof material.

Skin protection - Other

Use as appropriate: Protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Occupational exposure controls

Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.

Further information

Remove and wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Wash Buffer, 10X

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9.1. Information on basic physical and chemical properties

State	Liquid
Color	Clear/Colorless
Odor	Odorless/Slight
Odor threshold	No data available
pH	No data available
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability limits	Not applicable.
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	Not applicable.
Oxidizing properties	No data available
Solubility	Soluble in water

9.2. Other information

VOC (Volatile organic compounds)	Not applicable.
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SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
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10.4. Conditions to avoid

	Keep away from extreme temperatures.
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10.5. Incompatible materials

	No data available.
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10.6. Hazardous decomposition products

	Carbon oxides.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	May cause irritation to skin.

Wash Buffer, 10X

Revision 3
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11.1. Information on toxicological effects

Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	No teratogenic effects reported.
STOT-single exposure	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	No Significant Hazard.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

	See Section(s) 3 for further information.
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11.1.3. Hazard Information

	See Section(s) 2 and 3 for further information.
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11.1.4. Toxicological information

	No data available
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11.1.5. Hazard Class

	See Section(s) 2 and 14 for further information.
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11.1.6. Classification Criteria

	Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
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11.1.7. Information on likely routes of exposure

	Eye contact. Skin contact. Ingestion. Inhalation.
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11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

	See Section(s) 4.2 for further information.
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11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

	See Section(s) 4.2 for further information.
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11.1.10. Interactive effects

	No data available.
--	--------------------

11.1.11. Absence of specific data

	<1% of this mixture consists of ingredients of unknown acute toxicity.
--	--

11.1.12. Mixture versus substance information

	See Section(s) 3 for further information.
--	---

11.1.13. Other information

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Wash Buffer, 10X

Revision 3
Revision date 2020-05-29

11.1.13. Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

Wash Buffer, 10X No data available

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Specific test data for the mixture is not available.

Further information

Keep out of lakes, ponds, or streams. Do not let product contaminate subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.

If empty: Do not reuse this container. Place in trash or offer for recycling, if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

Wash Buffer, 10X

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Revision date 2020-05-29

14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

Regulations	Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.
Chemical Inventories/Right-to-Know Lists:	<p>--International--</p> <p>Basel Convention (Hazardous Waste): Not applicable.</p> <p>Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels.</p> <p>Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.</p> <p>Mercosur Agreement: Applicable.</p> <p>Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Rotterdam Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>--Asia and the ASEAN Nations--</p> <p>Catalog of Hazardous Chemicals (China): This product contains no hazardous substances at or above published reporting levels.</p> <p>Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.</p> <p>Air Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Poisonous and Deleterious Substances Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Soil Contamination Countermeasures Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Water Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Subject to Permission (Korea): This product contains no hazardous substances at or above published reporting levels.</p> <p>Restricted or Prohibited Substances (Korea): This product contains no hazardous substances at or above published reporting levels.</p>

Wash Buffer, 10X

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

Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This product contains no hazardous substances at or above published reporting levels.

Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969);, All ingredients listed or exempt., No restrictions.

Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.

Hazardous Substances Act (Thailand): This product contains no hazardous substances at or above published reporting levels.

Law on Chemicals (Vietnam): This product contains no hazardous substances at or above published reporting levels.

--Australia and New Zealand--.

Australian Dangerous Goods Code: Not applicable.

Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.

New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.

--European Union (EU) and the United Kingdom (UK)--.

Authorization List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.

Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels, No restrictions.

Article 95 of the Biocidal Products Regulation (BPR): Not applicable.

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.

New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.

Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.

Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels.

California Prop 65: This product does not contain reportable substances at >0.0001% concentration.

SECTION 16: Other information

Other information

Revision

This document differs from the previous version in the following areas:.

- 1 - Description.
- 1 - Product Use.
- 1 - Manufactured By:.
- 2 - Other hazards.
- 2 - 2.1.2. Classification - GHS.
- 8 - 8.1. Control parameters.
- 9 - 9.2. Other information (Product Subcategory).

Wash Buffer, 10X

Revision 3
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Other information

Acronyms	<p>15 - Chemical Inventories/Right-to-Know Lists: 16 - Maximum content of VOC.</p> <hr/> <p>ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR). CAS No.: Chemical Abstracts Service. CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia). FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act. GHS: Globally Harmonized System. HCS 2012: Hazard Communication Standard (2012 revision). IATA: International Air Transport Association. ICAO: International Civil Aviation Organization. IMDG: International Maritime Dangerous Goods. LD: Lethal dose. OEL: Occupational exposure limit. OSHA: U.S. Occupational Safety and Health Administration. PEL: Permissible Exposure Limit. REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals. SVHC: Substance of very high concern. US DOT: United States Department of Transportation. VOC: Volatile Organic Compound. WEL: Workplace Exposure Limit.</p>
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Further information

	<p>DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.</p> <p>Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.</p>
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SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

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K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

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

1.1. Product identifier

Product name	K-Blue® Advanced TMB Substrate
Product code	319171, 319175, 319176, 319177, 319210, 319257,
Product code	319170-W, 319174-W, 319210-L, 319xxx.

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

Product Use	[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [PC21] Laboratory chemicals;
Description	Intended for laboratory use only.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshar Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

	24 hours: Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international) Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)
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Further information

	Manufactured By:. Neogen Corporation 944 Nandino Blvd. Lexington, KY 40511-1205 U.S.A.
--	---

SECTION 2: Hazards identification

2.2. Label elements

Hazard Statements	No Significant Hazard
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2.3. Other hazards

Other hazards	Contains oxidizing substance(s) at <0.5%.
---------------	---

SECTION 3: Composition/information on ingredients

3.2. Mixtures

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
2-Pyrrolidinone		616-45-5	210-483-1		1-<6%	Eye Irrit. 2: H319;
Urea hydrogen peroxide		124-43-6	204-701-4		0 - 0.5%	Ox. Sol. 3: H272; Skin Corr. 1B: H314; Eye Dam. 1: H318;

Description

No components need to be disclosed according to the applicable regulations. Concentrations listed are not product specifications.

Further information

Full text of Hazard Statements listed in this Section is provided in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

5.2. Special hazards arising from the substance or mixture

Do not allow undiluted product to be released to ground water, water course or sewage system. Contains oxidizing substance(s) at <0.5%.

5.3. Advice for firefighters

Do not breathe vapor or spray mist. Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

K-Blue® Advanced TMB Substrate

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6.1. Personal precautions, protective equipment and emergency procedures

	Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.
--	---

6.2. Environmental precautions

	Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.
--	---

6.3. Methods and material for containment and cleaning up

	Absorb spillage to prevent material damage. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.
--	---

6.4. Reference to other sections

	See Section(s) 2, 8, and 13 for further information.
--	--

SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Read the entire label and follow all use directions, restrictions, and precautions. Use as appropriate: Protective clothing.
--	---

7.2. Conditions for safe storage, including any incompatibilities


	Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.
--	---

7.3. Specific end use(s)

	See Section(s) 1.2 for further information.
--	---

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

	
Appropriate engineering controls	Ensure adequate ventilation of the working area.
Individual protection measures	Use as appropriate: Protective equipment.
Eye / face protection	Use as appropriate: Suitable eye protection.
Skin protection - Hand protection	Use as appropriate: Chemical-resistant gloves made of any waterproof material.
Skin protection - Other	Use as appropriate: Protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Occupational exposure controls	Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

9.1. Information on basic physical and chemical properties

State	Liquid
Color	Clear/Light blue
Odor	Characteristic
Odor threshold	No data available
pH	3.1 - 3.5
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability limits	Not applicable.
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	Not applicable.
Oxidizing properties	No data available
Solubility	Soluble in water

9.2. Other information

VOC (Volatile organic compounds)	No data available
---	-------------------

SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
--	---------------------------------

10.2. Chemical stability

	Stable under normal conditions.
--	---------------------------------

10.3. Possibility of hazardous reactions

	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
--	---

10.4. Conditions to avoid

	Keep away from extreme temperatures.
--	--------------------------------------

10.5. Incompatible materials

	Avoid contact with: Combustible materials.
--	--

10.6. Hazardous decomposition products

	Carbon oxides.
--	----------------

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. However, this product does contain substance(s) that are classified as hazardous. For more information, see Section 3.
-----------------------	--

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

11.1. Information on toxicological effects

Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	No teratogenic effects reported.
STOT-single exposure	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	No Significant Hazard.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

	See Section(s) 3 for further information.
--	---

11.1.3. Hazard Information

	See Section(s) 2 and 3 for further information.
--	---

11.1.4. Toxicological information

	No data available
--	-------------------

11.1.5. Hazard Class

	See Section(s) 2 and 14 for further information.
--	--

11.1.6. Classification Criteria

	Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
--	--

11.1.7. Information on likely routes of exposure

	Eye contact. Skin contact. Ingestion. Inhalation.
--	---

11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

	See Section(s) 4.2 for further information.
--	---

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

	See Section(s) 4.2 for further information.
--	---

11.1.10. Interactive effects

	No data available.
--	--------------------

11.1.11. Absence of specific data

	<1% of this mixture consists of ingredients of unknown acute toxicity.
--	--

11.1.12. Mixture versus substance information

	See Section(s) 3 for further information.
--	---

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

11.1.13. Other information

No data is available on this product.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

K-Blue® Advanced TMB Substrate No data available

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Specific test data for the mixture is not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.
 If empty: Do not reuse this container. Place in trash or offer for recycling, if available.
 If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

14.4. Packing group

The product is not classified as dangerous for carriage.

K-Blue® Advanced TMB Substrate

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Revision date 2020-04-28

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

Regulations	Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.
Chemical Inventories/Right-to-Know Lists:	<p>--International--</p> <p>Basel Convention (Hazardous Waste): Not applicable.</p> <p>Chemical Weapons Convention (OPCW): This material contains no reportable components.</p> <p>Kyoto Protocol Greenhouse Gases: This material contains no reportable components.</p> <p>Mercosur Agreement: Applicable.</p> <p>Montreal Protocol: This material contains no reportable components.</p> <p>The Rotterdam Convention: This material contains no reportable components.</p> <p>The Stockholm Convention: This material contains no reportable components.</p> <p>--Asia and the ASEAN Nations--</p> <p>Catalog of Hazardous Chemicals (China): No. 101 [Pyrrol-2-one, CAS No. 616-45-5].</p> <p>Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This material contains no reportable components.</p> <p>Chemical Substances Control Law (Japan): This material contains no reportable components.</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): This material contains no reportable components.</p> <p>Poisonous and Deleterious Substances Act (Japan): This material contains no reportable components.</p> <p>Chemical Substances Subject to Permission (Korea): This material contains no reportable components.</p> <p>Restricted or Prohibited Substances (Korea): This material contains no reportable components.</p> <p>Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This material contains no reportable components.</p> <p>Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969);, [2-Pyrrolidinone, CAS No. 616-45-5].</p> <p>Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This material contains no reportable components.</p> <p>Hazardous Substances Act (Thailand): This material contains no reportable components.</p> <p>Law on Chemicals (Vietnam): This material contains no reportable components.</p> <p>--Australia and New Zealand--</p> <p>Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt.</p> <p>New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt.</p> <p>--European Union (EU) and the United Kingdom (UK)--</p> <p>Authorization List (Annex XIV of REACH): This material contains no reportable components.</p> <p>Annex XVII for REACH: This material contains no reportable components.</p> <p>Article 95 of the Biocidal Products Regulation (BPR): Not applicable.</p>

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

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

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: This material contains no reportable components.

New Jersey Worker and Community Right to Know Act: This material contains no reportable components.

Pennsylvania Right to Know Law: 2-Pyrrolidinone.

Rhode Island Right-to-Know General Law: This material contains no reportable components.

California Prop 65: This material contains no reportable components.

SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> 1 - Description. 1 - Manufactured By:. 2 - Other hazards. 4 - Inhalation. 5 - 5.2. Special hazards arising from the substance or mixture. 10 - 10.5. Incompatible materials. 11 - Repeated or prolonged exposure. 11 - Carcinogenicity. 11 - STOT-single exposure. 11 - 11.1.7. Information on likely routes of exposure. 11 - 11.1.13. Other information. 12 - 12.6. Other adverse effects. 15 - Chemical Inventories/Right-to-Know Lists:.
Acronyms	<p>ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR).</p> <p>CAS No.: Chemical Abstracts Service.</p> <p>GHS: Globally Harmonized System.</p> <p>HCS 2012: Hazard Communication Standard (2012 revision).</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: International Civil Aviation Organization.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LD: Lethal dose.</p> <p>OEL: Occupational exposure limit.</p> <p>OSHA: U.S. Occupational Safety and Health Administration.</p> <p>PEL: Permissible Exposure Limit.</p> <p>REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals.</p> <p>SVHC: Substance of very high concern.</p> <p>US DOT: United States Department of Transportation.</p> <p>VOC: Volatile Organic Compound.</p> <p>WEL: Workplace Exposure Limit.</p>
Text of Hazard Statements in Section 3	<p>Eye Irrit. 2: H319 - Causes serious eye irritation.</p> <p>Ox. Sol. 3: H272 - May intensify fire; oxidiser.</p> <p>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.</p> <p>Eye Dam. 1: H318 - Causes serious eye damage.</p>

Further information

K-Blue® Advanced TMB Substrate

Revision 5
Revision date 2020-04-28

Further information

DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.

Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.



SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

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Extraction Buffer (5x)

Revision 1
Revision date 2020-05-26

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

1.1. Product identifier

Product name	Extraction Buffer (5x)
Product code	21003, 21015

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

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PC21] Laboratory chemicals;
Description	Intended for laboratory use only. Do not use components from one kit with any other kit.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshar Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

	24 hours: Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international) Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)
--	--

Further information

	Manufactured By: Neogen Corporation 944 Nandino Blvd. Lexington, KY 40511-1205 U.S.A.
--	--

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	No Significant Hazard.
-----------------------------	------------------------

2.2. Label elements

Hazard Statements	No Significant Hazard
-------------------	-----------------------

2.3. Other hazards

Other hazards	Contains material(s) which may be harmful if swallowed.
---------------	---

SECTION 3: Composition/information on ingredients

Extraction Buffer (5x)

Revision 1
Revision date 2020-05-26

Description

No components need to be disclosed according to the applicable regulations.
Concentrations listed are not product specifications.

Further information

Full text of Hazard Statements listed in this Section is provided in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

5.2. Special hazards arising from the substance or mixture

Do not allow undiluted product to be released to ground water, water course or sewage system.

5.3. Advice for firefighters

Do not breathe vapor or spray mist. Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.

6.2. Environmental precautions

Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.

6.3. Methods and material for containment and cleaning up

Absorb spillage to prevent material damage. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

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6.4. Reference to other sections

See Section(s) 2, 8, and 13 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing.
Read the entire label and follow all use directions, restrictions, and precautions.

7.2. Conditions for safe storage, including any incompatibilities

Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.

7.3. Specific end use(s)

See Section(s) 1.2 for further information.

Further information

Refer to product label and/or package insert for additional information. Follow label instructions.

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the working area.

Individual protection measures

Use as appropriate: Protective equipment.

Eye / face protection

Use as appropriate: Suitable eye protection.

Skin protection - Hand protection

Use as appropriate: Chemical-resistant gloves made of any waterproof material.

Skin protection - Other

Use as appropriate: Protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Occupational exposure controls

Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.

Further information

Remove and wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

State	Liquid
Color	Colorless/Light yellow
Odor	Odorless/Slight
Odor threshold	No data available
pH	No data available
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Oxidizing properties	No data available
Explosive properties	Not applicable.
Flammability limits	Not applicable.
Solubility	Soluble in water

9.2. Other information

Benzene Content	No data available
Lead content	No data available
VOC (Volatile organic compounds)	No data available
Gas group	Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
--	---------------------------------

10.2. Chemical stability

	Stable under normal conditions.
--	---------------------------------

10.3. Possibility of hazardous reactions

	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
--	---

10.4. Conditions to avoid

	Keep away from extreme temperatures.
--	--------------------------------------

10.5. Incompatible materials

	No data available.
--	--------------------

10.6. Hazardous decomposition products

	Carbon oxides.
--	----------------

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	No teratogenic effects reported.
STOT-single exposure	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	No Significant Hazard.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

	See Section(s) 3 for further information.
--	---

11.1.3. Hazard Information

	See Section(s) 2 and 3 for further information.
--	---

11.1.4. Toxicological information

	No data available
--	-------------------

11.1.5. Hazard Class

	See Section(s) 2 and 14 for further information.
--	--

11.1.6. Classification Criteria

	Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
--	--

11.1.7. Information on likely routes of exposure

	Eye contact. Skin contact. Ingestion. Inhalation.
--	---

11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

	See Section(s) 4.2 for further information.
--	---

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

	See Section(s) 4.2 for further information.
--	---

11.1.10. Interactive effects

	No data available.
--	--------------------

11.1.11. Absence of specific data

	<1% of this mixture consists of ingredients of unknown acute toxicity.
--	--

11.1.12. Mixture versus substance information

	See Section(s) 3 for further information.
--	---

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11.1.13. Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

Extraction Buffer (5x) No data available

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Specific test data for the mixture is not available.

Further information

Keep out of lakes, ponds, or streams. Do not let product contaminate subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.
 If empty: Do not reuse this container. Place in trash or offer for recycling, if available.
 If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

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14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

<p>Regulations</p> <p>Chemical Inventories/Right-to-Know Lists:</p>	<p>Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.</p> <p>--International--</p> <p>Basel Convention (Hazardous Waste): Not applicable.</p> <p>Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels.</p> <p>Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.</p> <p>Mercosur Agreement: Applicable.</p> <p>Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Rotterdam Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>--Asia and the ASEAN Nations--</p> <p>Catalog of Hazardous Chemicals (China): This product contains no hazardous substances at or above published reporting levels.</p> <p>Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.</p> <p>Air Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Poisonous and Deleterious Substances Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Soil Contamination Countermeasures Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Water Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Subject to Permission (Korea): This product contains no hazardous substances at or above published reporting levels.</p> <p>Restricted or Prohibited Substances (Korea): This product contains no hazardous substances at or above published reporting levels.</p>
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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This product contains no hazardous substances at or above published reporting levels.

Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969);, All ingredients listed or exempt., No restrictions.

Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.

Hazardous Substances Act (Thailand): This product contains no hazardous substances at or above published reporting levels.

Law on Chemicals (Vietnam): This product contains no hazardous substances at or above published reporting levels.

--Australia and New Zealand--.

Australian Dangerous Goods Code: Not applicable.

Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.

New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.

--European Union (EU) and the United Kingdom (UK)--.

Authorization List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.

Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels, No restrictions.

Article 95 of the Biocidal Products Regulation (BPR): Not applicable.

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.

New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.

Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.

Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels.

California Prop 65: This product does not contain reportable substances at >0.0001% concentration.

SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> 1 - Description. 1 - Manufactured By:. 2 - Other hazards. 2 - 2.1.2. Classification - GHS. 9 - 9.1. Information on basic physical and chemical properties (Odor). 9 - 9.1. Information on basic physical and chemical properties (Melting point). 9 - 9.1. Information on basic physical and chemical properties (Explosive properties).
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Other information

Acronyms	<p>9 - 9.1. Information on basic physical and chemical properties (Fat Solubility). 9 - 9.2. Other information (Conductivity). 9 - 9.2. Other information (Gas group). 9 - 9.2. Other information (Surface tension). 15 - Chemical Inventories/Right-to-Know Lists:</p>
	<p>ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR). CAS No.: Chemical Abstracts Service. CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia). FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act. GHS: Globally Harmonized System. HCS 2012: Hazard Communication Standard (2012 revision). IATA: International Air Transport Association. ICAO: International Civil Aviation Organization. IMDG: International Maritime Dangerous Goods. LD: Lethal dose. OEL: Occupational exposure limit. OSHA: U.S. Occupational Safety and Health Administration. PEL: Permissible Exposure Limit. REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals. SVHC: Substance of very high concern. US DOT: United States Department of Transportation. VOC: Volatile Organic Compound. WEL: Workplace Exposure Limit.</p>

Further information

	<p>DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.</p> <p>Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.</p>
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SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

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

1.1. Product identifier

Product name	Estradiol Conjugate
Product code	21221

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

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PC21] Laboratory chemicals;
Description	Intended for laboratory use only. Do not use components from one kit with any other kit.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshar Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

	24 hours: Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international) Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)
--	--

Further information

	Manufactured By: Neogen Corporation 944 Nandino Blvd. Lexington, KY 40511-1205 U.S.A.
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	No Significant Hazard.
-----------------------------	------------------------

2.2. Label elements

Hazard Statements	No Significant Hazard
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2.3. Other hazards

Other hazards	Contains material(s) which may be harmful if swallowed.
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SECTION 3: Composition/information on ingredients

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Description

No components need to be disclosed according to the applicable regulations.
Concentrations listed are not product specifications.

Further information

Full text of Hazard Statements listed in this Section is provided in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

5.2. Special hazards arising from the substance or mixture

Do not allow undiluted product to be released to ground water, water course or sewage system.

5.3. Advice for firefighters

Do not breathe vapor or spray mist. Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.

6.2. Environmental precautions

Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.

6.3. Methods and material for containment and cleaning up

Absorb spillage to prevent material damage. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

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6.4. Reference to other sections

See Section(s) 2, 8, and 13 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing.
Read the entire label and follow all use directions, restrictions, and precautions.

7.2. Conditions for safe storage, including any incompatibilities

Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.

7.3. Specific end use(s)

See Section(s) 1.2 for further information.

Further information

Refer to product label and/or package insert for additional information. Follow label instructions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limits known.

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the working area.

Individual protection measures

Use as appropriate: Protective equipment.

Eye / face protection

Use as appropriate: Suitable eye protection.

Skin protection - Hand protection

Use as appropriate: Chemical-resistant gloves made of any waterproof material.

Skin protection - Other

Use as appropriate: Protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Occupational exposure controls

Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station.

Further information

Remove and wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

State	Liquid
Color	Amber/Orange
Odor	Odorless/Slight
Odor threshold	No data available
pH	6 - 6.2
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability limits	Not applicable.
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	Not applicable.
Oxidizing properties	No data available
Solubility	Soluble in water

9.2. Other information

VOC (Volatile organic compounds)	No data available
---	-------------------

SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
--	---------------------------------

10.2. Chemical stability

	Stable under normal conditions.
--	---------------------------------

10.3. Possibility of hazardous reactions

	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
--	---

10.4. Conditions to avoid

	Keep away from extreme temperatures.
--	--------------------------------------

10.5. Incompatible materials

	No data available.
--	--------------------

10.6. Hazardous decomposition products

	Carbon oxides.
--	----------------

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	May cause irritation to skin.

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11.1. Information on toxicological effects

Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	No teratogenic effects reported.
STOT-single exposure	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	No Significant Hazard.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

	See Section(s) 3 for further information.
--	---

11.1.3. Hazard Information

	See Section(s) 2 and 3 for further information.
--	---

11.1.4. Toxicological information

	No data available
--	-------------------

11.1.5. Hazard Class

	See Section(s) 2 and 14 for further information.
--	--

11.1.6. Classification Criteria

	Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
--	--

11.1.7. Information on likely routes of exposure

	Eye contact. Skin contact. Ingestion. Inhalation.
--	---

11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

	See Section(s) 4.2 for further information.
--	---

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

	See Section(s) 4.2 for further information.
--	---

11.1.10. Interactive effects

	No data available.
--	--------------------

11.1.11. Absence of specific data

	<1% of this mixture consists of ingredients of unknown acute toxicity.
--	--

11.1.12. Mixture versus substance information

	See Section(s) 3 for further information.
--	---

11.1.13. Other information

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11.1.13. Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

Estradiol Conjugate No data available

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Specific test data for the mixture is not available.

Further information

Keep out of lakes, ponds, or streams. Do not let product contaminate subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.

If empty: Do not reuse this container. Place in trash or offer for recycling, if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

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14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

Regulations	Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.
Chemical Inventories/Right-to-Know Lists:	<p>--International--</p> <p>Basel Convention (Hazardous Waste): Not applicable.</p> <p>Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels.</p> <p>Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.</p> <p>Mercosur Agreement: Applicable.</p> <p>Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Rotterdam Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.</p> <p>--Asia and the ASEAN Nations--</p> <p>Catalog of Hazardous Chemicals (China): This product contains no hazardous substances at or above published reporting levels.</p> <p>Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.</p> <p>Air Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Poisonous and Deleterious Substances Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Soil Contamination Countermeasures Act (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Water Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.</p> <p>Chemical Substances Subject to Permission (Korea): This product contains no hazardous substances at or above published reporting levels.</p> <p>Restricted or Prohibited Substances (Korea): This product contains no hazardous substances at or above published reporting levels.</p>

Estradiol Conjugate

Revision 1
Revision date 2020-05-26

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

Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): This product contains no hazardous substances at or above published reporting levels.

Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969);, All ingredients listed or exempt., No restrictions.

Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.

Hazardous Substances Act (Thailand): This product contains no hazardous substances at or above published reporting levels.

Law on Chemicals (Vietnam): This product contains no hazardous substances at or above published reporting levels.

--Australia and New Zealand--.

Australian Dangerous Goods Code: Not applicable.

Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.

New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.

--European Union (EU) and the United Kingdom (UK)--.

Authorization List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.

Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels, No restrictions.

Article 95 of the Biocidal Products Regulation (BPR): Not applicable.

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.

New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.

Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.

Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels.

California Prop 65: This product does not contain reportable substances at >0.0001% concentration.

SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> 1 - Description. 1 - Product Use. 1 - Manufactured By:. 2 - Other hazards. 2 - 2.1.2. Classification - GHS. 8 - 8.1. Control parameters. 11 - 11.1.4. Toxicological information.
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Estradiol Conjugate

Revision 1
Revision date 2020-05-26

Other information

Acronyms	<p>15 - Chemical Inventories/Right-to-Know Lists:</p> <p>ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR).</p> <p>CAS No.: Chemical Abstracts Service.</p> <p>CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia).</p> <p>FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act.</p> <p>GHS: Globally Harmonized System.</p> <p>HCS 2012: Hazard Communication Standard (2012 revision).</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: International Civil Aviation Organization.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LD: Lethal dose.</p> <p>OEL: Occupational exposure limit.</p> <p>OSHA: U.S. Occupational Safety and Health Administration.</p> <p>PEL: Permissible Exposure Limit.</p> <p>REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals.</p> <p>SVHC: Substance of very high concern.</p> <p>US DOT: United States Department of Transportation.</p> <p>VOC: Volatile Organic Compound.</p> <p>WEL: Workplace Exposure Limit.</p>
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Further information

	<p>DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.</p> <p>Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.</p>
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SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

Page 1/11

Estradiol Standard

Revision 2
Revision date 2020-06-10

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

1.1. Product identifier

Product name	Estradiol Standard
Product code	21302

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

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PC21] Laboratory chemicals;
Description	Intended for laboratory use only. Do not use components from one kit with any other kit.

1.3. Details of the supplier of the safety data sheet

Company	Neogen Corporation
Address	620 Leshler Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone	517-372-9200/800-234-5333
Email	SDS@neogen.com

1.4. Emergency telephone number

	24 hours: Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international) Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)
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Further information

	Manufactured By: Neogen Corporation 944 Nandino Blvd. Lexington, KY 40511-1205 U.S.A.
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	Flam. Liq. 2: H225; Acute Tox. 3: H301; Acute Tox. 3: H311; Acute Tox. 3: H331; STOT SE 1: H370;
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2.2. Label elements

Hazard pictograms



Estradiol Standard

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2.2. Label elements

Signal Word	Danger
Hazard Statement	Flam. Liq. 2: H225 - Highly flammable liquid and vapour. Acute Tox. 3: H301 - Toxic if swallowed. Acute Tox. 3: H311 - Toxic in contact with skin. Acute Tox. 3: H331 - Toxic if inhaled. STOT SE 1: H370 - Causes damage to organs .
Precautionary Statement: Prevention	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/ . P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER/doctor/ /if you feel unwell. P330 - Rinse mouth. P370+P378 - In case of fire: Use media appropriate to the surrounding conditions, Alcohol resistant foam, Carbon dioxide (CO2), Dry chemical, Foam to extinguish.
Precautionary Statement: Storage	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to an approved hazardous/special waste disposal facility in accordance with local and national regulations

2.3. Other hazards

Other hazards	Contains material(s) which may damage fertility or the unborn child.
----------------------	--

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Methanol	603-001-00-X	67-56-1	200-659-6		90 - 100%	Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT SE 1: H370;

Description

	Concentrations listed are not product specifications.
--	---

Further information

	Full text of Hazard Statements listed in this Section is provided in Section 16.
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SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.

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4.1. Description of first aid measures

Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Inhalation	May be toxic if inhaled. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May be toxic if absorbed through the skin. May cause irritation to skin.
Ingestion	May be toxic if swallowed. Ingestion may cause nausea and vomiting.

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

	Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. IF exposed or concerned: Get medical advice/attention. If medical advice is needed, have product container or label at hand.
--	---

SECTION 5: Firefighting measures

5.1. Extinguishing media

	In case of fire, use carbon dioxide (CO ₂), Alcohol resistant foam, Dry chemical, Foam. Use extinguishing media appropriate to the surrounding fire conditions.
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5.2. Special hazards arising from the substance or mixture

	In case of fire and/or explosion do not breathe fumes. Vapor may travel considerable distance to source of ignition and flash back. Heat will increase pressure in sealed containers.
--	---

5.3. Advice for firefighters

	Flammable liquid and vapour. In case of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus and protective clothing.
--	--

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Flammable liquid. Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid sparks, flames, heat and sources of ignition. Ensure adequate ventilation of the working area. Use as appropriate: Protective equipment. Avoid prolonged or repeated exposure.
--	--

6.2. Environmental precautions

	Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.
--	---

6.3. Methods and material for containment and cleaning up

	Flammable liquid. Absorb with inert, absorbent material. Collect spillage. Transfer to suitable, labelled containers for disposal. Dispose of this material and its container to hazardous or special waste collection point. Do not contaminate water by cleaning of equipment or disposal of wastes. Clean with detergents. Avoid solvents.
--	---

6.4. Reference to other sections

	See section 2, 8 & 13 for further information.
--	--

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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7.1. Precautions for safe handling

	Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing. Read the entire label and follow all use directions, restrictions, and precautions.
--	--

7.2. Conditions for safe storage, including any incompatibilities

	Flammable liquid and vapour. Contact with combustible material may cause fire. Keep refrigerated. Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.
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7.3. Specific end use(s)

	See Section 1.2 for further information.
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Further information

	Refer to product label and/or package insert for additional information. Follow label instructions.
--	---


SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limit Values

Estradiol Standard	<p>ACGIH TLV TWA: 200 ppm</p> <p>Notations:</p> <p>OSHA PEL 8hr TWA mg m3: 260</p> <p>NIOSH REL 10hr TWA ppm: 200</p> <p>NIOSH REL 15 min ST ppm:</p>	<p>ACGIH TLV STEL: 250 ppm</p> <p>OSHA PEL 8hr TWA ppm: 200</p> <p>Skin Designation:</p> <p>NIOSH REL 10hr TWA mg m3:</p> <p>NIOSH REL 15 min ST mg m3:</p>
Methanol	<p>ACGIH TLV TWA: 200 ppm</p> <p>Notations: Skin; BEI</p> <p>OSHA PEL 8hr TWA mg m3: 260</p> <p>NIOSH REL 10hr TWA ppm:</p> <p>NIOSH REL 15 min ST ppm:</p>	<p>ACGIH TLV STEL: 250 ppm</p> <p>OSHA PEL 8hr TWA ppm: 200</p> <p>Skin Designation: -</p> <p>NIOSH REL 10hr TWA mg m3:</p> <p>NIOSH REL 15 min ST mg m3:</p>

8.2. Exposure controls

	
Appropriate engineering controls	Ensure adequate ventilation of the working area.
Individual protection measures	Use as appropriate: Protective equipment.
Eye / face protection	Use as appropriate: Suitable eye protection.
Skin protection - Hand protection	Use as appropriate: Chemical-resistant gloves made of any waterproof material.
Skin protection - Other	Use as appropriate: Protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Occupational exposure controls	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from food, drink and animal feed and/ or feed products. Provide chemical shower. Provide eye wash station.

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Further information

Refer to product label and/or package insert for additional information.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State	Liquid
Color	Clear/Colorless
Odor	Alcoholic/Strong
Odor threshold	100 ppm
Melting point	-97.6 °C
Boiling point	64 - 65 °C
Flash point	12 °C
Evaporation rate	6.3 g/min
Flammability limits	Not applicable.
Upper Explosive Limit	36.5 %
Lower Explosive Limit	5.5 %
Vapor pressure	127 mmHg
Vapor density	1.11
Relative density	0.792
Partition coefficient (n-octanol/water)	-0.77 log P oct/wat
Autoignition temperature	440 °C
Viscosity	0.544 mPas (Cone & Plate)
Oxidizing properties	No data available
Solubility	Miscible in water

9.2. Other information

Conductivity	< 1 S/m
Surface tension	22.07 mN/m
VOC (Volatile organic compounds)	Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Contact with combustible material may cause fire. Keep away from oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides.

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Revision date 2020-06-10**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity	Toxic by inhalation, in contact with skin and if swallowed.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitization	May cause allergic reactions in susceptible people.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No components at >0.01% are listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. No components at >0.01% are listed in the International Agency for Research on Cancer (IARC) Monographs. No components at >0.01% are listed in the National Toxicology Program (NTP) Report on Carcinogens. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	Based on available data, the classification criteria are not met. However, this product does contain substance(s) that are classified as hazardous. For more information, see Section 3.
STOT-single exposure	Exposure may cause damage to organs (central nervous system, the liver, eyes or optic nerves). May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT-repeated exposure	Components(s) may cause damage to human organs based on animal data.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Avoid prolonged or repeated exposure. Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.

11.1.2. Mixtures

	See Section(s) 3 for further information.
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11.1.3. Hazard Information

	See Section(s) 2 and 3 for further information.
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11.1.4. Toxicological information

	No data available
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11.1.5. Hazard Class

	See Section(s) 2 and 14 for further information.
--	--

11.1.6. Classification Criteria

	Based on the Globally Harmonized System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations.
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11.1.7. Information on likely routes of exposure

	Eye contact. Skin contact. Inhalation. Ingestion.
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11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

	See Section(s) 4.2 for further information.
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11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

	See Section(s) 4.2 for further information.
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11.1.10. Interactive effects

	No data available.
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11.1.11. Absence of specific data

<1% of this mixture consists of ingredients of unknown acute toxicity.

11.1.12. Mixture versus substance information

See Section(s) 3 for further information.

11.1.13. Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

No data is available on this product.

Partition coefficient

Methanol -0.77 log P

12.4. Mobility in soil

No data is available on this product.

12.5. Results of PBT and vPvB assessment

No data is available on this product.

12.6. Other adverse effects

Specific test data for the substance or mixture is not available.

Further information

Keep out of lakes, ponds, or streams.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of as special waste in compliance with local and national regulations.

Disposal methods

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

Disposal of packaging

Nonrefillable container. Do not reuse or refill this container.
 If empty: Do not reuse this container. Place in trash or offer for recycling, if available.
 If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.



SECTION 14: Transport information

Hazard pictograms

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Hazard pictograms

	 
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14.1. UN number

	UN1230
--	--------

14.2. UN proper shipping name

	METHANOL (Methanol solution)
--	------------------------------

14.3. Transport hazard class(es)

DOT	3
Subsidiary risk	6.1
IMDG	3
Subsidiary risk	6.1
IATA	3
Subsidiary risk	6.1

14.4. Packing group

Packing group	II
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14.5. Environmental hazards

Environmental hazards	No
Marine pollutant	No

DOT

Hazard ID	336
Tunnel Category	(D/E)

IMDG

EmS Code	F-E S-D
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IATA

Packing Instruction (Cargo)	364
Maximum quantity	60 L
Packing Instruction (Passenger)	352
Maximum quantity	1 L

SECTION 15: Regulatory information

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

Regulations	Hazard Communication Standard: 29 Code of Federal Regulations 1910.1200: Occupational Safety and Health Standards: Z: Toxic and Hazardous Substances: Hazard Communication.
Chemical Inventories/Right-to-Know Lists:	--International-- Basel Convention (Hazardous Waste): H3, H6.1. Chemical Weapons Convention (OPCW): This product contains no hazardous substances at or above published reporting levels. Kyoto Protocol Greenhouse Gases: This product contains no hazardous substances at or above published reporting levels.

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Revision date 2020-06-10

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

Mercosur Agreement: Applicable.

Montreal Protocol: This product contains no hazardous substances at or above published reporting levels.

The Rotterdam Convention: This product contains no hazardous substances at or above published reporting levels.

The Stockholm Convention: This product contains no hazardous substances at or above published reporting levels.

--Asia and the ASEAN Nations--.

Catalog of Hazardous Chemicals (China): [1022, Methanol (methyl alcohol), CAS No. 67-56-1].

Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances: This product contains no hazardous substances at or above published reporting levels.

Air Pollution Control Law (Japan): Specified substance, [Methanol (methyl alcohol), CAS No. 67-56-1].

Chemical Substances Control Law (Japan): Priority Assessment, (human health), [90, Methanol (methyl alcohol), CAS No. 67-56-1].

Industrial Safety and Health Act, Dangerous Substances (Japan): Specified substance, Flammable, Second-class organic solvents, etc., Labeling/Notification required, [Methanol (methyl alcohol), CAS No. 67-56-1]. Administrative controls, reg. no. 67 [Methanol (methyl alcohol), CAS No. 67-56-1].

Poisonous and Deleterious Substances Act (Japan): Deleterious substance, [Methanol (methyl alcohol), CAS No. 67-56-1].

Soil Contamination Countermeasures Act (Japan): This product contains no hazardous substances at or above published reporting levels.

Water Pollution Control Law (Japan): This product contains no hazardous substances at or above published reporting levels.

Chemical Substances Subject to Permission (Korea): Accident precaution, Toxic substance, [97-1-80, Methanol (methyl alcohol), CAS No. 67-56-1].

Restricted or Prohibited Substances (Korea): This material contains no reportable components.

Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia): Schedule I exposure standard, CLASS regulation, [Methanol (methyl alcohol), CAS No. 67-56-1].

Philippine Inventory of Chemicals and Chemical Substances (PICCS): Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA6969):, All ingredients listed or exempt., No restrictions.

Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.

Hazardous Substances Act (Thailand): Type 1, [Methanol (methyl alcohol), CAS No. 67-56-1].

Law on Chemicals (Vietnam): Decree 113/2017/ND-CP: List of chemicals which require developing plan to respond and prevent chemical incident, Decree 113/2017/ND-CP: List of chemicals subject to be restricted in industrial production and trading, Decree 113/2017/ND-CP: List of chemicals subject to compulsory declaration.

--Australia and New Zealand--.

Australian Dangerous Goods Code: Class 3(6.1).

Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt., No restrictions.

New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.

--European Union (EU) and the United Kingdom (UK)--.

Annex XVII for REACH: Restricted, Flammable.

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Revision date 2020-06-10

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

Article 95 of the Biocidal Products Regulation (BPR): Not applicable.
Authorization List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.

--North America--.

Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.

Toxic Substances Control Act (TSCA): All ingredients listed or exempt.

Massachusetts Right-to-Know Hazardous Substance List: Methanol (methyl alcohol).

New Jersey Worker and Community Right to Know Act: Methanol (methyl alcohol).

Pennsylvania Right to Know Law: Methanol (methyl alcohol).

Rhode Island Right-to-Know General Law: Methanol (methyl alcohol).

****California residents please note**.**
WARNING: This product can expose you to chemicals, including Estradiol, CAS No. 50-28-2, which is/are known to the State of California to cause cancer, and Methanol, CAS No. 67-56-1 which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Inventories

Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Methanol	Y	Y	Y 1.0	Y	N	Y	N	N	N

SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> 1 - Product Use. 1 - Manufactured By:. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Response. 2 - Precautionary Statement: Storage. 2 - Precautionary Statement: Disposal. 7 - 7.2. Conditions for safe storage, including any incompatibilities. 11 - 11.1.4. Toxicological information. 12 - 12.1. Toxicity. 15 - Chemical Inventories/Right-to-Know Lists:.
Acronyms	<p>ACGIH: American Conference of Governmental Industrial Hygienists.</p> <p>ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR).</p> <p>CAS No.: Chemical Abstracts Service.</p> <p>CLASS: Classification, Labeling, and Safety Data Sheet of Hazardous Chemicals Regulation 2013 (Malaysia).</p> <p>FIFRA: U.S. Federal Insecticide, Fungicide, and Rodenticide Act.</p> <p>GHS: Globally Harmonized System.</p> <p>HCS 2012: Hazard Communication Standard (2012 revision).</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: International Civil Aviation Organization.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC: Lethal concentration.</p> <p>LD: Lethal dose.</p> <p>OEL: Occupational exposure limit.</p> <p>OSHA: U.S. Occupational Safety and Health Administration.</p>

Estradiol Standard

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Other information

	<p>PEL: Permissible Exposure Limit. REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals. SVHC: Substance of very high concern. UN: United Nations. US DOT: United States Department of Transportation. VOC: Volatile Organic Compound. WEL: Workplace Exposure Limit.</p>
<p>Text of Hazard Statements in Section 3</p>	<p>Flam. Liq. 2: H225 - Highly flammable liquid and vapour. Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled STOT SE 1: H370 - Causes damage to organs . STOT SE 2: H371 - May cause damage to organs .</p>

Further information

	<p>DISCLAIMER: The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.</p> <p>Except as expressly stated herein, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, USAGE OF TRADE, OR RESULTS TO BE OBTAINED BY USE OF THIS PRODUCT are made with respect to this product or use of this product. The product covered is furnished "as is" and only subject to the warranties herein provided, no liability is assumed resulting from the use of this product.</p>
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