

SAFETY DATA SHEET

according to DENR Administrative order N°2015-09 and GHS

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K-Blue® Advanced TMB Substrate

Revision 9

Revision date 2021-07-27

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	319175, 319176, 319177, 319257,
Product code	319170-W, 319174-W, 319xxx.

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	Substrate Solution. Intended for laboratory use only.

1.3. Details of the supplier of the safety data sheet

Company name	Neogen Corporation
Address	620 Leshar Place Lansing MI 48912 USA
Web	www.neogen.com
Telephone number	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	Repr. 1B: H360D;
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2.2. Label elements

Hazard pictograms	
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2.2. Label elements

Signal Word	Danger
Hazard Statement	Repr. 1B: H360D - May damage the unborn child.
Precautionary Statement: Prevention	P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P308+P313 - IF exposed or concerned: Get medical advice/attention.
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 be harmful if swallowed. Contains oxidising substance(s) at <0.5%.
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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
2-Pyrrolidinone		616-45-5	210-483-1		1 - 10%	Eye Irrit. 2: H319; Repr. 1B: H360D;
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

	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. May damage fertility or the unborn child .

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

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

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

5.3. Advice for firefighters

Do not breathe vapour or spray mist. Wear self-contained breathing apparatus and chemical-protective clothing.

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.

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.

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8.2. Exposure controls

	
8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Use as appropriate: Protective equipment.
Eye / face protection	Use as appropriate: Suitable eye protection.
Skin protection - Handprotection	Use as appropriate: Chemical-resistant gloves made of any waterproof material. Wash the outside of gloves before removing them.
Skin protection - Other	Use as appropriate: Protective clothing. Wash contaminated clothing, separately from other laundry, with detergent and water before reuse.
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.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Clear/Light blue
Odour	Characteristic
Oxidising properties	No data available
Odour threshold	No data available
pH	3.1 - 3.5
Melting point	No data available
Freezing Point	No data available
Initial boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable.
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Partition coefficient	No data available
Autoignition temperature	Not applicable.
Viscosity	No data available
Explosive properties	Not applicable.
Solubility	Soluble in water

9.2. Other information

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9.2. Other information

Conductivity	No data available
Surface tension	No data available
VOC (Volatile organic compounds)	No data available

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. 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 sensitisation	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. US State Regulations: New Jersey Right-to-Know Hazardous Substances List: This material contains no listed components. Pennsylvania Right-to-Know Hazardous Substance List: This material contains no listed components. Massachusetts Right-to-Know Toxic or Hazardous Substances List: This material contains no listed components.
Reproductive toxicity	Toxic for reproduction category 1.

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11.1. Information on toxicological effects

STOT-single exposure STOT-repeated exposure Aspiration hazard Repeated or prolonged exposure	May damage fertility or the unborn child .
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	No Significant Hazard. May cause damage to human organs based on animal data.
	No Significant Hazard.
	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 Harmonised 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.
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11.1.11. Absence of specific data

	<1% of this mixture consists of ingredients of unknown acute toxicity.
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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.
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SECTION 12: Ecological information

12.1. Toxicity

	No data available
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12.2. Persistence and degradability

	No data is available on this product.
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12.3. Bioaccumulative potential

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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.

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.

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.

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SECTION 15: Regulatory information

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

Regulations Chemical Inventories/Right-to-Know Lists:	<p>According to DENR Administrative order N°2015-09 and GHS.</p> <hr/> <p>--International--</p> <p>Basel Convention (Hazardous Waste): H11.</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): [1908, Triethyltetramine, CAS No. 112-24-3 (<0.1%)], [899, Urea hydrogen peroxide, CAS No. 124-43-6 (<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, [Triethyltetramine, CAS No. 112-24-3 (<0.1%)].</p> <p>Chemical Substances Control Law (Japan): Class I environmental release, [Triethyltetramine, CAS No. 112-24-3 (<0.1%)]. Type II monitoring, No. 982 [Triethyltetramine, CAS No. 112-24-3 (<0.1%)].</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): [Triethyltetramine, CAS No. 112-24-3 (<0.1%)], [Urea hydrogen peroxide, CAS No. 124-43-6 (<0.1%)].</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> <p>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.</p> <p>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.</p> <p>Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA): This product contains no hazardous substances at or above published reporting levels.</p> <p>Hazardous Substances Act (Thailand): Type 1, [Triethyltetramine, CAS No. 112-24-3 (<0.1%)].</p> <p>Law on Chemicals (Vietnam): Decree 113/2017/ND-CP: List of chemicals subject to conditional industrial production and trading, Decree 113/2017/ND-CP: List of chemicals subject to compulsory declaration, [Triethyltetramine, CAS No. 112-24-3 (<0.1%)], [Urea hydrogen peroxide,</p>
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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

	<p>CAS No. 124-43-6 (<0.05%)].</p> <p>--Australia and New Zealand--.</p> <p>Australian Dangerous Goods Code: Not applicable.</p> <p>Australian Inventory of Chemical Substances (AICS): This product contains one or more components that are not listed or exempt from listing on the inventory administered by the governing country, (<0.1%).</p> <p>New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt., No restrictions.</p> <p>--European Union (EU) and the United Kingdom (UK)--.</p> <p>Authorisation List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.</p> <p>Annex XVII for REACH: This product contains no hazardous substances at or above published reporting levels, No restrictions.</p> <p>Article 95 of the Biocidal Products Regulation (BPR): Not applicable.</p> <p>--North America--.</p> <p>Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt., No restrictions.</p> <p>Toxic Substances Control Act (TSCA): This product contains one or more components that are not listed or exempt from listing on the inventory administered by the governing country, (<0.1%).</p> <p>Massachusetts Right-to-Know Hazardous Substance List: This product contains no hazardous substances at or above published reporting levels.</p> <p>New Jersey Worker and Community Right to Know Act: This product contains no hazardous substances at or above published reporting levels.</p> <p>Pennsylvania Right to Know Law: This product contains no hazardous substances at or above published reporting levels.</p> <p>Rhode Island Right-to-Know General Law: This product contains no hazardous substances at or above published reporting levels.</p> <p>California Proposition 65: This product does not contain reportable substances at >0,0001% concentration.</p>
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SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <p>8 - 8.1. Control parameters.</p> <p>15 - Chemical Inventories/Right-to-Know Lists:.</p>
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>CLASS: Classification, Labelling, 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: U.S. Hazard Communication Standard (2012 revision).</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: International Civil Aviation Organisation.</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>

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Other information

	<p>PEL: Permissible Exposure Limit. REACH: Registration, Evaluation, Authorisation, and Restriction of Chemicals. STOT: Specific Target Organ Toxicity. SVHC: Substance of very high concern. 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>Eye Irrit. 2: H319 - Causes serious eye irritation. Repr. 1B: H360D - May damage the unborn child. Ox. Sol. 3: H272 - May intensify fire; oxidiser. Skin Corr. 1B: H314 - Causes severe skin burns and eye damage. Eye Dam. 1: H318 - Causes serious eye damage.</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, EXPRESS 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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