



SAFETY DATA SHEET

according to HSNO Act 1996, as amended

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Enhanced K-Blue® Substrate

Revision 6
Revision date 2021-02-11

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

1.1. Product identifier

Product name	Enhanced K-Blue® Substrate
Product code	308171, 308175, 308176, 308177, 308181,
Product code	21007, 308170-W, 308174-W, 308177-U, 308187, 308187-L, 308189, 308189-L, 308189-WH-L, 308193, 308194-W, 308194-WL, 308199, 308202, 308203, 308203-L, 308205, 308205-W, 308206, 308208, 308209, 308212, 308240, 308240-W, 308243, 308249-L, 308249-WL, 308251, 308254, 308254-W, 308254-WL, 308255-W, 308256, 308256-L, 308257, 308258, 308261, 308xxx (generic), 501822, 501823.

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. 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	Repr. 1B: H360D;
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2.2. Label elements

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2.2. Label elements

Hazard pictograms	
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. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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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
N-Methyl-2-pyrrolidone (1-Methyl-2-pyrrolidone)	606-021-00-7	872-50-4	212-828-1		1 - 10%	Repr. 1B: H360D; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315;
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

	Included on the Candidate List of Substances of Very High Concern: 1-Methyl-2-pyrrolidone, CAS No. 872-50-4. 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

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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. 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 vapour or spray mist. Wear suitable respiratory equipment when necessary.
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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.
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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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

N-Methyl-2-pyrrolidone (1-Methyl-2-pyrrolidone)	TWA ppm: 25	TWA mg/m3: 103
	STEL ppm: 75	STEL mg/m3: 309

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.

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

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

9.2. Other information

Conductivity	No data available
Surface tension	No data available
Gas group	Not applicable.
Benzene Content	No data available
Lead content	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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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. Not listed in the OSHA standard 1910.1003 Carcinogens.
Reproductive toxicity	Toxic for reproduction category 1. 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. 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.
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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.

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

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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 as special waste in compliance with 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

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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	This document has been prepared in accordance with the requirements set out under the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017, the Hazardous Substances (Safety Data Sheets) Notice 2017 and the Hazardous Substances (Labelling) Notice 2017.
Chemical Inventories/Right-to-Know Lists:	<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): [899, Urea peroxide, CAS No. 124-43-6 (<0.5%)], [1908, Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].</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, [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].</p> <p>Chemical Substances Control Law (Japan): Priority Assessment, (human health), [136, N-Methyl-2-pyrrolidone, CAS No. 872-50-4], Class I environmental release, [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)]. Type II monitoring, No. 982 [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].</p> <p>Industrial Safety and Health Act, Dangerous Substances (Japan): Labeling/Notification required,</p>

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[N-Methyl-2-pyrrolidone, CAS No. 872-50-4].
 Poisonous and Deleterious Substances Act (Japan): Deleterious substance, [Urea peroxide, CAS No. 124-43-6 (<0.5%)], [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].
 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): Priority Control substance, [Annex I-93, 1-Methyl-2-pyrrolidone, CAS No. 872-50-4], Toxic substance, [2014-1-7000, 1-Methyl-2-pyrrolidone, CAS No. 872-50-4].
 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):, 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, [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].
 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, [Urea hydrogen peroxide, CAS No. 124-43-6 (<0.5%)], [Triethylenetetramine, CAS No. 112-24-3 (<0.1%)].

--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)--.
 Authorisation List (Annex XIV of REACH): This product contains no hazardous substances at or above published reporting levels.
 Annex XVII for REACH: Restricted, [1-Methyl-2-pyrrolidone, CAS No. 872-50-4].
 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: N-Methyl-2-pyrrolidone, CAS No. 872-50-4.
 New Jersey Worker and Community Right to Know Act: 1-Methyl-2-pyrrolidone, CAS No. 872-50-4.
 Pennsylvania Right to Know Law: 2-Pyrrolidinone, 1-methyl, CAS No. 872-50-4.
 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 N-methyl-2-pyrrolidone, CAS No. 872-50-4, which is/are known to the State of California to cause birth defects or other

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

reproductive harm. For more information go to www.P65Warnings.ca.gov.

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 code. 1 - Product Use. 1 - Manufactured By:. 2 - Other hazards. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Storage. 2 - 2.1.2. Classification - GHS. 3 - Description. 4 - Ingestion. 5 - 5.2. Special hazards arising from the substance or mixture. 5 - 5.3. Advice for firefighters. 7 - 7.2. Conditions for safe storage, including any incompatibilities. 8 - 8.1. Control parameters. 8 - Further information. 9 - 9.2. Other information (Conductivity). 9 - 9.2. Other information (Surface tension). 9 - 9.2. Other information (Benzene Content). 9 - 9.2. Other information (Lead content). 11 - Acute toxicity. 11 - Repeated or prolonged exposure. 11 - Reproductive toxicity. 12 - 12.6. Other adverse effects. 13 - 13.1. Waste treatment methods. 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>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> <p>PEL: Permissible Exposure Limit.</p> <p>REACH: Registration, Evaluation, Authorisation, and Restriction of Chemicals.</p> <p>STOT: Specific Target Organ Toxicity.</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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Other information

Text of Hazard Statements in Section 3	<p>Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory 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>
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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, 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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