Safety Data Sheet
Highlighter Core Kit (OSHA)

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Highlighter Core Kit
Product number	HL72K
Brand	Highlighter Core Kit

1.2 Other means of identification

Component 1. K087-HL : DP1 (Dewax Solution-1)
Component 2. K088-HL : DP2 (Dewax Solution-2)
Component 3. K089-HL: CA2 (Citrate buffer, pH6.0)
Component 4. K102-HL: EA1 (Tris EDTA buffer, pH9.0)
Component 5. K054-HL: Tissue Primer
Component 6. K023-HL: Background Blocker
Component 7. PTS-L-HL: Mouse/Rabbit Linker (Yellow)
Component 8. PTS-P-HL: HRP Polymer (Red)
Component 9. K081-B-HL: DAB Auto Buffer
Component 10. K081-C-HL: DAB Auto Chromogen
Component 11. K097-HL: Blue Hematoxylin

1.3 Recommended use of the chemical and restrictions on use

In Vitro Diagnostic Use

1.4 Supplier's details

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

1.5 Emergency phone number

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

SECTION 2: Hazard identification

General hazard statement
For professional users only

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal (C.4.2), Cat. 3
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 5
- Acute toxicity, oral (C.4.1), Cat. 4
- Carcinogenicity (C.4.9), Cat. 1B
- Germ cell mutagenicity (C.4.8), Cat. 2
- Skin corrosion/irritation (C.4.4), Cat. 1A
- Sensitization, skin (C.4.7), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram

1. Exclamation mark; 2. Skull and crossbones; 3. Health hazard; 4. Corrosion

Signal word **Danger**

Hazard statement(s)

H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell,
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to a licensed disposal company.

2.3 Other hazards which do not result in classification

No other hazards identified.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component 1. Dewax Solution-1

1. Butoxydiglycol

Concentration	<= 0.1 % (volume)
Other names / synonyms	2-(2-Butoxyethoxy)ethanol; BUTOXYDIETHYLENE GLYCOL; BUTOXYETHOXYETHANOL,2-2-; BUTYL CARBITOL; BUTYL DIOXITOL; DEGBE; DIEHYLENE DB; Diethylene glycol butyl ether; diethylene glycol monobutyl ether; Diethylene glycol monobutyl ether (DEGBE); DIETHYLENE GLYCOL n-BUTYL ETHER; DIGLYCOL MONOBUTYL ETHER; DOWANOL DB; EKTASOLVE DB; Ethanol, 2-(2-butoxyethoxy)-; GLYCOL ETHER DB; GLYCOL MONOBUTYL ETHER; JEFFERSOL DB; O-BUTYL DIETHYLENE GLYCOL; POLY-SOLV DB
EC no.	203-961-6
CAS no.	112-34-5
Index no.	603-096-00-8

- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Acute toxicity, oral (chapter 3.1), Cat. 5
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2

H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H319	Causes serious eye irritation

Component 2. Dewax Solution-2

1. Butoxydiglycol

Concentration	<= 0.1 % (volume)
Other names / synonyms	2-(2-Butoxyethoxy)ethanol; BUTOXYDIETHYLENE GLYCOL; BUTOXYETHOXYETHANOL,2-2-; BUTYL CARBITOL; BUTYL DIOXITOL; DEGBE; DIEHYLENE DB; Diethylene glycol butyl ether; diethylene glycol monobutyl ether; Diethylene glycol monobutyl ether (DEGBE); DIETHYLENE GLYCOL n-BUTYL ETHER; DIGLYCOL MONOBUTYL ETHER; DOWANOL DB; EKTASOLVE DB; Ethanol, 2-(2-butoxyethoxy)-; GLYCOL ETHER DB; GLYCOL MONOBUTYL ETHER; JEFFERSOL DB; O-BUTYL DIETHYLENE GLYCOL; POLY-SOLV DB
EC no.	203-961-6
CAS no.	112-34-5
Index no.	603-096-00-8

- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Acute toxicity, oral (chapter 3.1), Cat. 5
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2

H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H319	Causes serious eye irritation

Component 3. Citrate Buffer

1. SODIUM AZIDE

Concentration	<= 0.5 % (weight)
Other names / synonyms	Sodium azide (Na(N3))
EC no.	247-852-1
CAS no.	26628-22-8
Index no.	011-004-00-7

- Acute toxicity, dermal (C.4.2), Cat. 1
- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 2
- Specific target organ toxicity (repeated exposure) (C.4.12), Cat. 2
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

Component 4. Tris EDTA Buffer

1. Tromethamine

Concentration	<= 0.2 % (weight)
Other names / synonyms	1,3-Propanediol, 2-amino-2-(hydroxymethyl)-; Tris; Trometamol;
CAS no.	77-86-1

2. EDTA Trisodium salt

Concentration	<= 0.5 % (weight)
CAS no.	10378-22-0

3. Polysorbate 21

Concentration	<= 0.1 % (volume)
Other names / synonyms	Polyoxyethylene sorbitan monolaurate; Polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.; Tween 20
EC no.	500-018-3
CAS no.	9005-64-5

Component 5. Tissue Primer

1. Hydrogen peroxide

Concentration	<= 5 % (volume)
Other names / synonyms	ALBONE; DIHYDROGEN DIOXIDE; HYDROGEN DIOXIDE; HYDROGEN PEROXIDE (20- 27.5%); Hydrogen peroxide (H2O2); hydrogen peroxide solution … %; hydrogen peroxide solution ...%; HYDROGEN PEROXIDE SOLUTION (30%); Hydrogen peroxide, and other compounds or mixtures that release hydrogen peroxide, including carbamide peroxide and zinc

	peroxide; Hydrogenii peroxidum; HYDROGENPEROXIDE(30%); HYDROPEROXIDE; PEROXIDE; SUPEROXOL; T-STUFF
EC no.	231-765-0
CAS no.	7722-84-1
Index no.	008-003-00-9

- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, oral (C.4.1), Cat. 4
- Oxidizing liquids (C.4.26), Cat. 1
- Skin corrosion/irritation (C.4.4), Cat. 1A

H271	May cause fire or explosion; strong oxidizer
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
SCLs/M-factors/ATEs	Ox. Liq. 1; H271: C ≥ 70 %****
	Ox. Liq. 2; H272: 50 % ≤ C < 70 % ****
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	Skin Corr. 1A; H314: C ≥ 70 %
	Skin Corr. 1B; H314: 50 % ≤ C < 70 %
	Skin Irrit. 2; H315: 35 % ≤ C < 50 %
	Eye Dam. 1; H318: 8 % ≤ C < 50 %
	Eye Irrit. 2; H319: 5 % ≤ C < 8 %
	STOT SE 3; H335; C ≥ 35 %

2. Reaction mass of: 5-Chloro-2-methyl4- isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

Concentration	<= 0.5 % (volume)
Other names / synonyms	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone; Kathon 886;
EC no.	—
CAS no.	55965-84-9
Index no.	613-167-00-5

- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, dermal (C.4.2), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 3
- Skin corrosion/irritation (C.4.4), Cat. 1C
- Eye damage/irritation (C.4.5), Cat. 1
- Sensitization, skin (C.4.7), Cat. 1A
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H301	Toxic if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
SCLs/M-factors/ATEs	Skin Corr. 1C; : C ≥ ,6 %
	Skin Irrit. 2; H315: ,06 % ≤ C < ,6 %
	Eye Dam. 1; : C ≥ ,6 %
	Eye Irrit. 2; H319: ,06 % ≤ C < ,6 %

	Skin Sens. 1A; : C ≥ ,0015 %
	M=100
	M=100

Component 6. Background Blocker

1. Sodium azide

Concentration	<= 0.1 % (weight)
Other names / synonyms	Sodium azide (Na(N3))
EC no.	247-852-1
CAS no.	26628-22-8
Index no.	011-004-00-7

- Acute toxicity, dermal (C.4.2), Cat. 1
- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 2
- Specific target organ toxicity (repeated exposure) (C.4.12), Cat. 2
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

Component 7. Mouse/Rabbit Linker

1. Reaction mass of: 5-Chloro-2-methyl4- isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

Concentration	<= 0.5 % (volume)
Other names / synonyms	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone; Kathon 886;
EC no.	—
CAS no.	55965-84-9
Index no.	613-167-00-5

- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, dermal (C.4.2), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 3
- Skin corrosion/irritation (C.4.4), Cat. 1C
- Eye damage/irritation (C.4.5), Cat. 1
- Sensitization, skin (C.4.7), Cat. 1A
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H301	Toxic if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
SCLs/M-factors/ATEs	Skin Corr. 1C; : C ≥ ,6 %
	Skin Irrit. 2; H315: ,06 % ≤ C < ,6 %
	Eye Dam. 1; : C ≥ ,6 %
	Eye Irrit. 2; H319: ,06 % ≤ C < ,6 %
	Skin Sens. 1A; : C ≥ ,0015 %

M=100
M=100

Component 8. HRP Polymer

1. Reaction mass of: 5-Chloro-2-methyl4- isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

Concentration	<= 0.5 % (volume)
Other names / synonyms	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone; Kathon 886;
EC no.	—
CAS no.	55965-84-9
Index no.	613-167-00-5

- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, dermal (C.4.2), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 3
- Skin corrosion/irritation (C.4.4), Cat. 1C
- Eye damage/irritation (C.4.5), Cat. 1
- Sensitization, skin (C.4.7), Cat. 1A
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H301	Toxic if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
SCLs/M-factors/ATEs	Skin Corr. 1C; : C ≥ ,6 % Skin Irrit. 2; H315: ,06 % ≤ C < ,6 % Eye Dam. 1; : C ≥ ,6 % Eye Irrit. 2; H319: ,06 % ≤ C < ,6 % Skin Sens. 1A; : C ≥ ,0015 % M=100 M=100

Component 9. DAB Auto Buffer

1. Hydrogen peroxide

Concentration	<= 5 % (volume)
Other names / synonyms	ALBONE; DIHYDROGEN DIOXIDE; HYDROGEN DIOXIDE; HYDROGEN PEROXIDE (20- 27.5%); Hydrogen peroxide (H2O2); hydrogen peroxide solution … %; hydrogen peroxide solution ...%; HYDROGEN PEROXIDE SOLUTION (30%); Hydrogen peroxide, and other compounds or mixtures that release hydrogen peroxide, including carbamide peroxide and zinc peroxide; Hydrogenii peroxidum; HYDROGENPEROXIDE(30%); HYDROPEROXIDE; PEROXIDE; SUPEROXOL; T-STUFF
EC no.	231-765-0
CAS no.	7722-84-1
Index no.	008-003-00-9

- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, oral (C.4.1), Cat. 4
- Oxidizing liquids (C.4.26), Cat. 1
- Skin corrosion/irritation (C.4.4), Cat. 1A

H271	May cause fire or explosion; strong oxidizer
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
SCLs/M-factors/ATEs	Ox. Liq. 1; H271: C ≥ 70 %****
	Ox. Liq. 2; H272: 50 % ≤ C < 70 % ****
	*
	Skin Corr. 1A; H314: C ≥ 70 %
	Skin Corr. 1B; H314: 50 % ≤ C < 70 %
	Skin Irrit. 2; H315: 35 % ≤ C < 50 %
	Eye Dam. 1; H318: 8 % ≤ C < 50 %
	Eye Irrit. 2; H319: 5 % ≤ C < 8 %
	STOT SE 3; H335; C ≥ 35 %

Component 10. DAB Auto Chromogen

1. 3,3'-Diaminobenzidine tetrahydrochloride hydrate

Concentration	<= 5 % (weight)
CAS no.	868272-85-9
Other names / synonyms	[1,1'-Biphenyl]-3,3',4,4'-tetramine; biphenyl-3,3',4,4'-tetrayltetraamine; diaminobenzidine

- Serious eye damage/eye irritation (chapter 3.3), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 4
- Carcinogenicity (C.4.9), Cat. 1B
- Germ cell mutagenicity (C.4.8), Cat. 2

H341	Suspected of causing genetic defects
H350	May cause cancer

Component 11. Blue Hematoxylin

1. Aluminum sulfate

Concentration	<= 5 % (weight)
Other names / synonyms	Aluminii sulfas; Aluminium sulfate; Aluminium sulphate; Sulfuric acid, aluminum salt (3:2)
CAS no.	10043-01-3

2. Acetic acid

Concentration	<= 5 % (volume)

Other names / synonyms	acetic acid ... %; ACETIC ACID, conc.>90%; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID
EC no.	200-580-7
CAS no.	64-19-7
Index no.	607-002-00-6

- Flammable liquids (C.4.19), Cat. 3
- Skin corrosion/irritation (C.4.4), Cat. 1A

H226	Flammable liquid and vapor
H314	Causes severe skin burns and eye damage
SCLs/M-factors/ATEs	Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %

3. HEMATOXYLIN

Concentration	<= 1 % (weight)
Other names / synonyms	Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-;
CAS no.	517-28-2

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Personal protective equipment for first-aid responders

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

4.2 Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary
No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

SODIUM AZIDE: Sodium oxides

Reaction mass of: 5-Chloro-2-methyl4- isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) : Carbon oxide. Nitrogen oxides.

3,3'-Diaminobenzidine: Carbon oxides, Nitrogen oxides (NOx)

5.3 Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions
Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 112-34-5 (EC: 203-961-6)

Butoxydiglycol

ACGIH (USA): 10 ppm TLV®

CAS: 26628-22-8 (EC: 247-852-1)

Sodium azide

ACGIH: 0.29 mg/m3 (C); 0.1 ppm (C) hydrazoic acid vapor TLV® inhalation; NIOSH: 0.29 mg/m3 (C); 0.1 ppm (C) hydrazoic acid vapor REL-C inhalation

CAS: 64-19-7 (EC: 200-580-7)

Acetic acid

ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; Cal/OSHA (USA): 40 ppm C inhalation; 10 ppm, (ST) 15 ppm, (C) 40 ppm PEL inhalation; 10 ppm, 25 mg/m3 PEL inhalation; 15 ppm, 37 mg/m3 STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m3 ST inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation

CAS: 7722-84-1

Hydrogen peroxide

ACGIH (USA): 1 ppm TLV® inhalation; Cal/OSHA (USA): 1 ppm PEL inhalation; NIOSH (USA): 1 ppm REL inhalation; OSHA (USA): 1 ppm PEL inhalation; 1.4 mg/m3 PEL inhalation

8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards
No data available

Control banding approach
No data available.

Environmental exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Liquid
Color	Various colors
Odor	Odorless
Odor threshold	No data available.
pH	Variouw
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Particle characteristics
No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
None under normal use conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
None under normal use conditions.

10.4 Conditions to avoid
Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

10.5 Incompatible materials

Diethylene glycol butyl ether: Strong oxidizing agents, Light metals

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Hydrogen peroxide: Zinc, Powdered metals, Iron, Copper, Nickel, Brass, Iron and iron salts.

Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium
permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products

Diethylene glycol butyl ether: Other decomposition products - No data available
In the event of fire: see section 5

Hydrogen peroxide: Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
The ATE (dermal) of the mixture is: 909.09 mg/kg bw

The ATE (gas inhalation) of the mixture is: 9000 ppmV

The ATE (vapor inhalation) of the mixture is: 40.74 mg/l

The ATE (oral) of the mixture is: 800 mg/kg bw

Skin corrosion/irritation
Acetic acid
LD50 Skin - Rat - 1,112 mg/kg

Diethylene glycol butyl ether
LD50 Skin - Rabbit - male - 2,764 mg/kg
Remarks: (OECD Test Guideline 402)

Sodium azide
LD50 Skin - Rat - 20 mg/kg

Serious eye damage/irritation
No data available.

Respiratory or skin sensitization
Acetic acid
LC50 Inhalation - Mouse - 5620 ppm - 1 h
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid
LC50 Inhalation - Rat - 11.4 mg/l - 4 h

Sodium azide
LC50 Inhalation - Rat - 0.054 - 0.52 mg/l - 4 hr

Germ cell mutagenicity
Based on available data, classification data are not met

Carcinogenicity
3,3'-Diaminobenzidine
Oral - Rat
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.
Presumed to have carcinogenic potential for humans

Reproductive toxicity
Based on available data, classification data are not met

STOT-single exposure
No data available.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
No data available.

SECTION 12: Ecological information

Toxicity
Acetic acid
LC50 - Oncorhynchus mykiss (rainbow trout) - >1,000 mg/l - 96 h
Citation: (OECD Test Guideline 203)

Acetic acid
EC50 - Daphnia magna (water flea) - >300.82 mg/l - 48 h
Citation: (OECD Test Guideline 202)

Diethylene glycol butyl ether
LC50 - Lepomis macrochirus (bluegill) - 1,300 mg/l - 96 h
Remarks: (OECD Test Guideline 203)

Diethylene glycol butyl ether
EC50 - Daphnia magna (water flea) - >100 mg/l - 48 h
Remarks: (Directive 67/548/EEC, Annex V, C.2.)

Polyoxyethylene sorbitan monolaurate
LC50 - Other fish - 350 mg/l - 24 h

Sodium azide
LC50 - Oncorhynchus mykiss (rainbow trout) - 2.96 mg/l - 96 h

Sodium azide
EC50 - Pseudokirchneriella subcapitata (green algae) - 0.348 mg/l - 96 h

Persistence and degradability
Diethylene glycol butyl ether
aerobic - 28 d
Result: 91.7 % - Readily biodegradable
Remarks: OECD Test Guideline 301B)

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Offer surplus and non-recyclable solutions to a licensed disposal company.

Packaging disposal
Dispose of as unused product.

Waste treatment
No data available

Sewage disposal
Do not let product enter drains

Other disposal recommendations
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Domestic Substances List (DSL)
Chemical name: Ethanol, 2-(2-butoxyethoxy)-
CAS: 112-34-5

Chemical name: Sodium azide (Na(N3))
CAS: 26628-22-8

Chemical name: 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-
CAS: 77-86-1

Chemical name: Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.
CAS: 9005-64-5

Chemical name: Hydrogen peroxide (H2O2)
CAS: 7722-84-1

Chemical name: 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone
CAS: 55965-84-9

Chemical name: Sulfuric acid, aluminum salt (3:2)
CAS: 10043-01-3

Chemical name: Acetic acid
CAS: 64-19-7

Chemical name: Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-
CAS: 517-28-2

Canadian Non-Domestic Substances List (NDSL)
Chemical name: [1,1'-Biphenyl]-3,3',4,4'-tetramine
CAS: 91-95-2

Massachusetts Right To Know Components
Chemical name: Sodium azide (Na(N3))
CAS number: 26628-22-8

Hydrogen peroxide
CAS number: 7722-84-1

Chemical name: Aluminum sulfate
CAS number: 10043-01-3

Acetic acid
CAS number: 64-19-7

New Jersey Right To Know Components
2-(2-Butoxyethoxy)ethanol
CAS-No. 112-34-5

Common name: SODIUM AZIDE
CAS number: 26628-22-8

Polyoxyethylene sorbitan monolaurate
CAS-No. 9005-64-5

Water
CAS-number: 7732-18-5
Hydrogen peroxide
CAS number: 7722-84-1

Biphenyl-3,3',4,4'-tetrayltetraamine
CAS-No. 91-95-2

Common name: ALUMINUM SULFATE
CAS number: 10043-01-3

Acetic acid
CAS number: 64-19-7

Pennsylvania Right To Know Components
2-(2-Butoxyethoxy)ethanol
CAS-No. 112-34-5

Chemical name: Sodium azide
CAS number: 26628-22-8

Polyoxyethylene sorbitan monolaurate
CAS-No. 9005-64-5

Water
CAS-number: 7732-18-5
Hydrogen peroxide
CAS number: 7722-84-1

Biphenyl-3,3',4,4'-tetrayltetraamine
CAS-No. 91-95-2

Chemical name: Sulfuric acid, aluminum salt (3:2)
CAS number: 10043-01-3

Acetic acid
CAS number: 64-19-7

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:
Hydrogen peroxide
CAS-Number: 7722-84-1

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Acute Health Hazard

Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:
2-(2-Butoxyethoxy)ethanol
CAS-No. 112-34-5

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

Seveso Directive
Yes. H2 -acute toxic. E1

15.2 Chemical Safety Assessment
The supplier of this product has not conducted any Chemical Safety Assessment

SECTION 16: Other information

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16.1 Further information/disclaimer
DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic

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