

B-5 Fixative, Substitute

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 1/21/2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : B-5 Fixative, Substitute
Product code : 3348 - all sizes

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only, For professional use only
Restrictions on use : Not for food, drug or household use

1.4. Supplier's details

Astral Diagnostics
Ethos Biosciences, Inc.
2070 Center Square Road
Logan Township, New Jersey 08085
United States
T +1-856-224-0900; +1-800-441-0366 Technical Service; Monday-Friday: 8:00 AM-5:00 PM, Eastern US Time
www.ethosbiosciences.com

1.5. Emergency phone number

Emergency number : 800-424-9300 CHEMTREC (USA) -- 24 Hours/Day, 7 Days/Week

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquid, Category 2	H225	Highly flammable liquid and vapor.
Corrosive to metals, Category 1	H290	May be corrosive to metals.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Carcinogenicity, Category 1A	H350	May cause cancer.
Full text of H statements : see section 16		

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H225 - Highly flammable liquid and vapor
H290 - May be corrosive to metals
H317 - May cause an allergic skin reaction
H350 - May cause cancer.
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

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smoking.
P233 - Keep container tightly closed.
P234 - Keep only in original packaging.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - If on skin: Wash with plenty of water.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media to extinguish.
P390 - Absorb spillage to prevent material-damage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	GHS US classification
water	CAS-No.: 7732-18-5	> 93.92	Not classified
formaldehyde	CAS-No.: 50-00-0	2.59	Carc. 1A, H350
methanol	CAS-No.: 67-56-1	< 2.49	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT SE 1, H370
Methylene Blue	CAS-No.: 61-73-4	< 1	Acute Tox. 4 (Oral), H302
zinc sulfate heptahydrate	CAS-No.: 7446-20-0	< 1	Acute Tox. 4 (Oral), H302

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Name	Product identifier	Conc.	GHS US classification
potassium hydroxide	CAS-No.: 1310-58-3	< 0.5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Eye Dam. 1, H318
2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base	CAS-No.: 77-86-1	< 0.5	Not classified
maleic acid	CAS-No.: 110-16-7	< 0.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Highly flammable liquid and vapor.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
Hygiene measures : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up.
Incompatible materials : Metals.
Packaging materials : Store always product in container of same material as original container.

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

potassium hydroxide (1310-58-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Potassium hydroxide
ACGIH OEL C	2 mg/m ³
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2024
methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH OEL TWA	200 ppm
ACGIH OEL STEL	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2024
USA - ACGIH - Biological Exposure Indices	
Local name	Methanol
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL TWA	260 mg/m ³
	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing

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Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: Blue
Odor	: Alcohol odour characteristic
Odor threshold	: No data available
pH	: ≈ 6
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Miscible with water. Water: Solubility in water of component(s) of the mixture : • potassium hydroxide: 121 g/100ml • methanol: ≥ 100 g/100ml • Methylene Blue: 4.4 g/100ml • 2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base: 678 - 689 g/l
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

potassium hydroxide

Boiling point	1327 °C (1013 hPa)
Flash point	Not applicable (solid)
Auto-ignition temperature	Not applicable
Vapor pressure	≤ 0.01 hPa (520 °C)
Particle characteristics	No data available

methanol

Boiling point	65 °C (1013 hPa)
Flash point	10 °C (Closed cup, 1013 hPa, EU Method A.9: Flash-Point)
Auto-ignition temperature	455 °C (1013 hPa, DIN 51794: Self-ignition temperature, T1)
Vapor pressure	128 hPa (20 °C)
Vapor pressure at 50°C	552 hPa

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methanol

Particle characteristics	No data available
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Methylene Blue

Boiling point	No data available in the literature
Flash point	Not applicable (solid)
Auto-ignition temperature	No data available in the literature
Vapor pressure	< 0.01 hPa (25 °C)
Particle characteristics	No data available

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base

Boiling point	288 °C (1011 - 1016 hPa, Equivalent or similar to OECD 103)
Flash point	Not applicable (solid)
Auto-ignition temperature	Not applicable (solid)
Vapor pressure	< 0.01 hPa (20 °C)
Particle characteristics	No data available

water

Particle characteristics	No data available
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maleic acid

Particle characteristics	No data available
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formaldehyde

Particle characteristics	No data available
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zinc sulfate heptahydrate

Boiling point	330 °C at 760 mmHg Source: Guidechem
Particle characteristics	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

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

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

potassium hydroxide (1310-58-3)

LD50 oral rat	333 – 388 mg/kg body weight (Equivalent or similar to OECD 425, Rat, Male, Experimental value, Oral, 14 day(s))
ATE US (oral)	333 mg/kg body weight

methanol (67-56-1)

LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, 15-35 % aqueous solution, Oral, 7 day(s))
LD50 dermal rabbit	17100 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
LC50 Inhalation - Rat	128.2 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	1187 mg/kg body weight
ATE US (dermal)	17100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Methylene Blue (61-73-4)

LD50 oral rat	1180 mg/kg (Rat, Oral)
ATE US (oral)	1180 mg/kg body weight

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)

LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)

maleic acid (110-16-7)

ATE US (oral)	500 mg/kg body weight
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zinc sulfate heptahydrate (7446-20-0)	
LD50 oral rat	1260 mg/kg Source: GESTIS
ATE US (oral)	1260 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: ≈ 6

potassium hydroxide (1310-58-3)	
pH	13.5 (0.56 %, 25 °C)

methanol (67-56-1)	
pH	No data available in the literature

Methylene Blue (61-73-4)	
pH	4 (1 %)

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)	
pH	10 – 11 (5 %)

zinc sulfate heptahydrate (7446-20-0)	
pH	4 – 5.6 Source: GESTIS

Serious eye damage/irritation : Not classified
pH: ≈ 6

potassium hydroxide (1310-58-3)	
pH	13.5 (0.56 %, 25 °C)

methanol (67-56-1)	
pH	No data available in the literature

Methylene Blue (61-73-4)	
pH	4 (1 %)

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)	
pH	10 – 11 (5 %)

zinc sulfate heptahydrate (7446-20-0)	
pH	4 – 5.6 Source: GESTIS

Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer.

formaldehyde (50-00-0)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

methanol (67-56-1)	
STOT-single exposure	Causes damage to organs.

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maleic acid (110-16-7)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
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Viscosity, kinematic	No data available
potassium hydroxide (1310-58-3)	
Viscosity, kinematic	Not applicable (solid)
methanol (67-56-1)	
Viscosity, kinematic	0.68 – 0.747 mm²/s
Methylene Blue (61-73-4)	
Viscosity, kinematic	Not applicable (solid)
2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)	
Viscosity, kinematic	Not applicable (solid)
water (7732-18-5)	
Viscosity, kinematic	No data available
maleic acid (110-16-7)	
Viscosity, kinematic	No data available
formaldehyde (50-00-0)	
Viscosity, kinematic	No data available
zinc sulfate heptahydrate (7446-20-0)	
Viscosity, kinematic	No data available
Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
EC50 96h - Algae [1]	22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

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methanol (67-56-1)	
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	446.7 mg/l Test organisms (species): Pimephales promelas Duration: '28 d'
Methylene Blue (61-73-4)	
LC50 - Fish [1]	45 mg/l (96 h, Pimephales promelas, Literature study, Anhydrous form)
EC50 - Crustacea [1]	2.26 mg/l (48 h, Daphnia magna, Literature study, Anhydrous form)
2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)	
EC50 - Crustacea [1]	> 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	397 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
zinc sulfate heptahydrate (7446-20-0)	
LC50 - Fish [1]	0.00236 – 238 mg/l Source: GESTIS
EC50 72h - Algae [1]	0.05 – 65 mg/l Source: GESTIS
12.2. Persistence and degradability	
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Persistence and degradability	Not rapidly degradable
potassium hydroxide (1310-58-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
Methylene Blue (61-73-4)	
Persistence and degradability	Not readily biodegradable in water.
2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)	
Persistence and degradability	Readily biodegradable in water.
water (7732-18-5)	
Persistence and degradability	Not rapidly degradable
maleic acid (110-16-7)	
Persistence and degradability	Not rapidly degradable
formaldehyde (50-00-0)	
Persistence and degradability	Not rapidly degradable

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zinc sulfate heptahydrate (7446-20-0)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

potassium hydroxide (1310-58-3)

Bioaccumulative potential	Not bioaccumulative.
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methanol (67-56-1)

BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Methylene Blue (61-73-4)

Partition coefficient n-octanol/water (Log Pow)	0.75 (Estimated value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)

Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

potassium hydroxide (1310-58-3)

Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.

methanol (67-56-1)

Mobility in soil	2.75 Source: HSDB
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Methylene Blue (61-73-4)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.901 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

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SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Flammable vapors may accumulate in the container. Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (TDG)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: Not regulated
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TDG

Transport hazard class(es) (TDG)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (TDG)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

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IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

zinc sulfate heptahydrate	CAS-No. 7446-20-0	< 1%
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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

methanol	CAS-No. 67-56-1	< 2.49%
formaldehyde ...%	CAS-No. 50-00-0	2.59%

potassium hydroxide (1310-58-3)

CERCLA RQ	1000 lb
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methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	5000 lb
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maleic acid (110-16-7)

CERCLA RQ	5000 lb
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formaldehyde (50-00-0)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

15.2. International regulations

CANADA

potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List)

methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

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Methylene Blue (61-73-4)

Listed on the Canadian DSL (Domestic Substances List)

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)

Listed on the Canadian DSL (Domestic Substances List)

water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

maleic acid (110-16-7)

Listed on the Canadian DSL (Domestic Substances List)

formaldehyde (50-00-0)

Listed on the Canadian DSL (Domestic Substances List)

zinc sulfate heptahydrate (7446-20-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

potassium hydroxide (1310-58-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

methanol (67-56-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Methylene Blue (61-73-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

2-amino-2-(hydroxymethyl)-1,3-propanediol; Tris Base (77-86-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

water (7732-18-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

maleic acid (110-16-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

formaldehyde (50-00-0)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

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15.3. State regulations



WARNING:

This product can expose you to chemicals including formaldehyde, which is known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
potassium hydroxide(1310-58-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
methanol(67-56-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List
maleic acid(110-16-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
formaldehyde(50-00-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

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Full text of hazard classes and H-statements	
H225	Highly flammable liquid and vapor
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H350	May cause cancer.
H370	Causes damage to organs.

NFPA health hazard

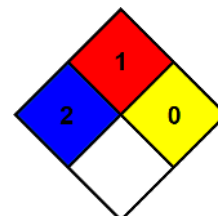
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness