

Path-Mark™ Margin Ink, Yellow

1. Identification

Product Name: Path-Mark™ Margin Ink, Yellow

Item #: MA0116002, MA0116009, MA0116024, MA0116032

Web SDS: S54

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2A

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage:N/A

Disposal:N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Hansa yellow Pigment		6358-31-2	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



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Path-Mark™ Margin Ink, Yellow

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Yellow, Yellow Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.14



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Path-Mark™ Margin Ink, Yellow

Odor: Ammoniacal
Odor Threshold: N/A
Color: Yellow
Flammability (solid/gas): LEL 2.6% UEL 12.5%
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: Under 1.0 mmHg 25°C
Evaporation Rate: Under 1.0 (BuAct=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): WARNING: This product contains chemicals known to the State of California to cause cancer. This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

12. Ecological Information

Ecotoxicity:
Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects:



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Path-Mark™ Margin Ink, Yellow

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

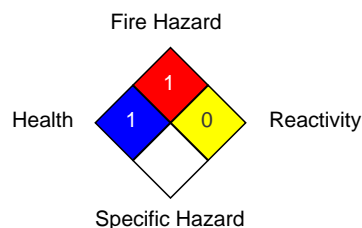
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Path-Mark™ Margin Ink, Green

1. Identification

Product Name: Path-Mark™ Margin Ink, Green

Item #: MA0116008, MA0116015, MA0116023, MA0116031

Web SDS: S60

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2A

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage:N/A

Disposal:N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Phthalo Green Pigment		1328-53-6	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



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Path-Mark™ Margin Ink, Green

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Green, Green Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.14



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Green

Odor: Ammoniacal
Odor Threshold: N/A
Color: Green
Flammability (solid/gas): LEL 2.6% UEL 12.5%
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: Under 1.0 mmHg 25°C
Evaporation Rate: Under 1.0 (BuAct=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): WARNING: This product contains chemicals known to the State of California to cause cancer. This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

12. Ecological Information

Ecotoxicity:
Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects:



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Path-Mark™ Margin Ink, Green

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

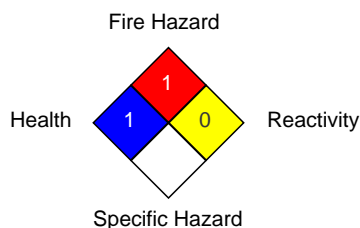
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Notice to Reader:

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Path-Mark™ Margin Ink, Black

1. Identification

Product Name: Path-Mark™ Margin Ink, Black

Item #: MA0116007, MA0116014, MA0116020, MA0116028

Web SDS: S59

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2
Eye Irritation - Category 2A
Carcinogenicity - Category 2

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection. P0 Wear protective gloves, protective clothing, eye protection and face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Carbon Black Pigment		1333-86-4	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-6	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



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Path-Mark™ Margin Ink, Black

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness. Repeat exposure by inhalation increases risk of lung cancer.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store locked up. Store in a well-ventilated, cool place. Keep lid tightly closed. Store away from oxidizing agents. Store and use in areas away from heat, sparks and open flame.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Carbon Black Pigment	1333-86-4	3.5 mg/m ³

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Carbon Black Pigment	1333-86-4	3 mg/m ³	

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Black, Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.16
Odor: Ammoniacal
Odor Threshold: N/A
Color: Black
Flammability (solid/gas): N/A
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: LEL 2.6%, UEL 12.5%
Vapor Pressure: Under 1.0 (BuAct=1)
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache. May cause lung cancer with repeat exposure over time.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): Carbon black, amorphous LD50(dermal, rat) => 3000mg/kg,
LD50(oral, rat) => 15400mg/kg

Carcinogenicity (NTP, IARC, OSHA): Contains: Carbon black, amorphous IARC Group 2B-Possibly Carcinogenic to Humans.
Target organs: Lungs

12. Ecological Information

Ecotoxicity: Carbon black, amorphous EC50 Daphnia magna=5600mg/L, 24hr

Persistence and degradability:

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Mobility in the soil:

Adverse Environmental Effects:



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Black

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

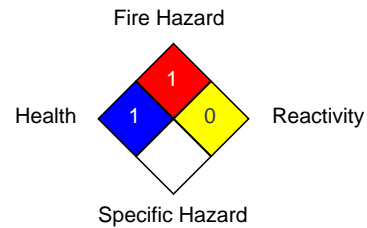
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	1
Physical Hazard	0
Personal Protection	

Notice to Reader:

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Path-Mark™ Margin Ink, Purple

1. Identification

Product Name: Path-Mark™ Margin Ink, Purple

Item #: MA0116006, MA0116013, MA0116021, MA0116029

Web SDS: S58

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2A

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage:N/A

Disposal:N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Amines, tallow alkyl ethoxylated		61791-26-2	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Purple

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Purple, Purple Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.14

Odor: Ammoniacal
Odor Threshold: N/A
Color: Purple
Flammability (solid/gas): LEL 2.6% UEL 12.5%
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: Under 1.0 mmHg 25°C
Evaporation Rate: Under 1.0 (BuAct=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): Amines, tallow alkyl ethoxylated CAS 61791-26-2: LD50(oral, rat)=500 mg/kg

Carcinogenicity (NTP, IARC, OSHA): N/A

12. Ecological Information

Ecotoxicity:
Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects:

13. Disposal Considerations



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Purple

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

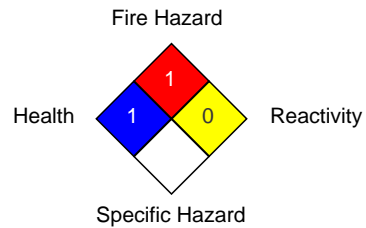
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Path-Mark™ Margin Ink, Orange

1. Identification

Product Name: Path-Mark™ Margin Ink, Orange

Item #: MA0116005, MA0116012, MA0116022, MA0116030

Web SDS: S57

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2A

Specific Target Organ Toxicity (single exposure) - Category 1

Signal Word: Danger

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation. Causes damage to organs.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection. Do not breathe dust, vapors. Do not eat, drink or smoke when using this product.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Call a doctor.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Amines, tallow alkyl, ethoxylated		61791-26-2	Trade Secret
5-Decyne-4,7-diol,2,4,5,9-tetramethyl		126-86-3	Trade Secret
Nonylphenol, branched, ethoxylated		68412-54-4	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Orange

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store locked up. Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Orange, Liquid

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F
Melting Point/Freezing Point: N/A
Flash Point: 211°F
Specific Gravity/Relative Density: 1.14
Odor: Ammoniacal
Odor Threshold: N/A
Color: Orange
Flammability (solid/gas): LEL 2.6% UEL 12.5%E
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): Amines, Tallow alkyl, ethoxylated LD50(oral, rat)=620mg/kg, LD50(oral, rat)=500 mg/kg
5-Decyne-4,7-diol, 2,4,5,9-tetramethyl LD50(oral, rat)=>500 mg/kg, LC50 >20000(inhalation, rat)=mg/m³/1H, LD50(skin, rabbit)=>1000 mg/kg

Nonylphenol, branched, ethoxylated LD50(oral, rat)=200-2000mg/kg

Carcinogenicity (NTP, IARC, OSHA): N/A

12. Ecological Information

Ecotoxicity:



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Orange

Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects:

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities.*
Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*
Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*
Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*
Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous.
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group Number:
Environmental Hazards (IMDG code):
Marine Pollutant:
Transport in Bulk (IBC Code):
Special Transport Precautions:

15. Regulatory Information

OSHA:
DOT:
EPA:
CPSC:

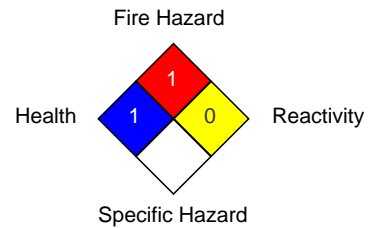
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	1
Physical Hazard	0
Personal Protection	

Notice to Reader:

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1. Identification

Product Name: Path-Mark™ Margin Ink, Red

Item #: MA0116004, MA0116011, MA0116019, MA0116027

Web SDS: S56

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtec US 1-800-424-9300
Chemtec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2A

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage:N/A

Disposal:N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Quinacridone Red Pigment		1047-16-1	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Red

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Red, Red Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.14

Odor: Ammoniacal
Odor Threshold: N/A
Color: Red
Flammability (solid/gas): LEL 2.6% UEL 12.5%
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: Under 1.0 mmHg 25°C
Evaporation Rate: Under 1.0 (BuAct=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): Quinacridone Red Pigment, CAS# 1047-16-1 LC50(inhalation, rat) => 3100 mg/m3

Carcinogenicity (NTP, IARC, OSHA): WARNING: This product contains chemicals known to the State of California to cause cancer. This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.

12. Ecological Information

Ecotoxicity:
Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects:



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Red

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities.*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

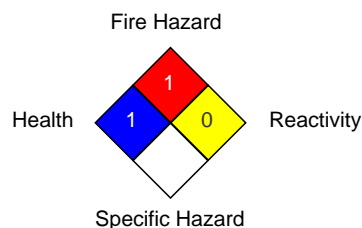
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Notice to Reader:

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1. Identification

Product Name: Path-Mark™ Margin Ink, Blue

Item #: MA0116003, MA0116010, MA0116018, MA0116026

Web SDS: S55

Synonyms: N/A

Recommended Use: N/A

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Skin Irritation - Category 2
Eye Irritation - Category 2A

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention.

Storage:N/A

Disposal:N/A

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Phthalo Blue Pigment		147-14-8	Trade Secret
Surfactants NV		Trade Secret	Trade Secret
Propylene Glycol		57-55-6	Trade Secret
Water		7732-18-5	Trade Secret
Ammonium Hydroxide 28%		1336-21-5	Trade Secret
Preservatives		Trade Secret	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water.



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Blue

If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: DO NOT use water, except as FOAM.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated place. Keep cool. Keep lid tightly closed. Store and use in areas away from heat, sparks and open flame. Store away from oxidizing agents.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
N/A		

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Blue, Liquid/Paste

Molecular Weight: N/A

Molecular Formula: N/A

pH: N/A

Boiling Point and Boiling Range: 365-374°F

Melting Point/Freezing Point: N/A

Flash Point: 211°F

Specific Gravity/Relative Density: 1.14

Odor: Ammoniacal
Odor Threshold: N/A
Color: Blue
Flammability (solid/gas): LEL 2.6% UEL 12.5%
Vapor Density: 2.62 Air=1
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: Under 1.0 mmHg 25°C
Evaporation Rate: Under 1.0 (BuAct=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.
Skin: Irritation.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures):

Carcinogenicity (NTP, IARC, OSHA): N/A

12. Ecological Information

Ecotoxicity:

Persistence and degradability:

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Mobility in the soil:

Adverse Environmental Effects:

13. Disposal Considerations



SAFETY DATA SHEET

Path-Mark™ Margin Ink, Blue

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not hazardous

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

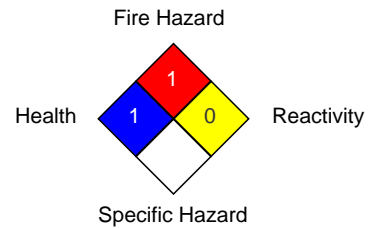
16. Other Information

Revision Date: 10/27/2014

NFPA

Health	1
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

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