

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Black	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Carbon Black Pigment	1333-86-4	3.5 mg/M3	
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6	Not listed	
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; black. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; black.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Black.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.16		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: 13.0 Cadmium: <0.5 Selenium: 21.0 Barium: <1.0 Chromium: 1.5 Arsenic: <1.0 Copper: 3.1 Zinc 5.4 Nickel: <1.0 Lead: 2.6

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements	
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Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	1		
	Reactivity	0		
	Personal Protection	H		
References				
Other Special Considerations				
Notice to Reader				
<p><i>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.</i></p>				

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Blue	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Phthalo Blue Pigment	147-14-8		
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6	Not listed	
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; blue. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; blue.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Blue.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.14		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <<42.0 Cadmium: N/A Selenium: N/A Barium: <84.0 Chromium: <4.0 Arsenic: <42.0 Copper: <34.0 Zinc <25.0 Lead: <20.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	1	
	Reactivity	0	

Personal Protection	H
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References

**Other Special
Considerations**

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.

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Green	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Phthalo Green Pigment	1328-53-6		
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6	Not listed	
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; green. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; green.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Green.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.21		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <25.0 Cadmium: <10.0 Selenium: <5.0 Barium: <25.0 Chromium: <5.0 Arsenic: <30.0 Copper: <0.5% Zinc <5.0 Soluble Barium: <50.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	1	
	Reactivity	0	

Personal Protection	H
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References

Other Special Considerations

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.

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Orange	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Diarylide Orange Pigment	15793-73-4	Not listed	
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6		
6) Preservatives			
7) Transparent Yellow Oxide Pigment	51274-00-1		

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; Orange. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	<p>Eyes May cause irritation (redness, tearing, burning) if vapors present in excessive amount.</p> <p>Skin Some irritation; overexposure can cause defatting, dermatitis.</p> <p>Inhalation May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.</p> <p>Ingestion May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.</p>
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition	Not available.

Temperature	
Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; Orange.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Orange.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.13		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		

Physical Chemical Comments	Not available.
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Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <100.0 Cadmium: <100.0 Selenium: <100.0 Barium: <100.0 Chromium: <100.0 Arsenic: <50.0 Copper: <5.0 Zinc: <2000.0 Lead: <100.0 Cobalt: <200.0 Nickel: <100.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	1		
	Reactivity	0		
	Personal Protection	H		
References				
Other Special Considerations				
Notice to Reader				
<p><i>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.</i></p>				

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Purple	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Quinacridone Violet Pigment	1047-16-1	10 mg/M3	
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6	Not listed	
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; violet. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; violet.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Violet.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.11		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <30.0 Cadmium: <6.0 Selenium: N/A Barium: <30.0 Chromium: <6.0 Arsenic: <30.0 Copper: <10.0 Zinc <6.0 Lead: <5.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

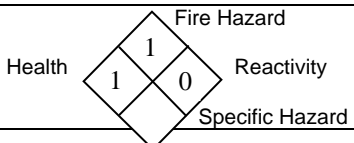
Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	1	
	Reactivity	0	
			

Personal Protection	H
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References

**Other Special
Considerations**

Notice to Reader

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BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Red	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Quinacridone Red Pigment	1047-16-1	Not listed	
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6		
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Dark red liquid/paste. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; red; ammoniacal odor.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Red.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.12		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <30.0 Cadmium: N/A Selenium: N/A Barium: <30.0 Chromium: <3.0 Arsenic: <30.0 Copper: <10.0 Zinc <30.0 Lead: <3.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	1	
	Reactivity	0	

Personal Protection	H
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References

Other Special Considerations

Notice to Reader

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BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Path-Mark™ Margin Ink Yellow	Code:	MA0116016, MA0116001
Supplier:	BBC Biochemical	MSDS#:	MA0116001
Synonym:	None.	Validation Date:	2-25-09
Trade Name:	None.	Print Date:	2-25-09
Material Uses:	Not Available	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	Exposure Limits
1) Hansa Yellow Pigment	6358-31-2		
2) Surfactants NV	Proprietary		
3) Propylene Glycol	57-55-6		
4) Water	7732-18-5		
5) Ammonium Hydroxide 28%	1336-21-6	Not listed	
6) Preservatives			

Section 3. Hazards Identification

Physical State and Appearance	Liquid/paste; yellow. Mild ammoniacal odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, and skin absorption.
Potential Acute Health Effects	
Eyes	May cause irritation (redness, tearing, burning) if vapors present in excessive amount.
Skin	Some irritation; overexposure can cause defatting, dermatitis.
Inhalation	May cause dizziness, headache, nausea, and narcosis; can aggravate asthma-like conditions.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable Liquid.
Auto-ignition Temperature	Not available.

Flash Points	211 F (99C)
Flammable Limits	2.6/12.5 % by volume (lower/upper)
Products of Combustion	Carbon dioxide and possible carbon monoxide.
Fire Hazards in Presence Of Various Substances	Keep away from excessive heat or open flame.
Explosion Hazards in Presence of Various Substances	Keep away from excessive heat or open flame.
Fire Fighting Media and Instructions	DO NOT use water, except as FOAM.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapor can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved side shields should be worn at all times.
Body	Protective clothing, such as a lab coat, to minimize skin contact.
Respiratory	Use NIOSH or MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent protective gloves.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid/paste; yellow.	Odor:	Ammoniacal odor.
Molecular Weight	Not applicable.	Taste:	Vinous.
Molecular Formula	Not applicable.	Color:	Yellow.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	365-374 F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	1.13		
Vapor Pressure	<1.0 mm Hg 25C		
Vapor Density	2.62 Air =1		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	<1.0 (BuAct=1)		
VOC	209 (lbs/gal); 250 gr/L		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide) may be released in a fire.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Not Available.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Heavy Metal Content (in PPM unless otherwise noted) Antimony: <10.0 Cadmium: 5.0 Selenium: <10.0 Barium: <300.0 Chromium: None Arsenic: <10.0 Copper: Unknown Zinc None Lead: <100.0

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Non Hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements	
Hazardous Material Information System (U.S.A.)	Health 1
	Fire Hazard 1
	Reactivity 0
National Fire Protection Association (U.S.A.)	Fire Hazard 1 Reactivity 0 Specific Hazard

Personal Protection	H
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References

Other Special Considerations

Notice to Reader

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