

Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier Tissue Marking Dye, Black Product Use Margin Identification Date Prepared Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG021

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	NA	NA	N/A
Black Pigment Dispersion	< 15	1333-86-4	N/A	N/A	N/A
Isopropyl Alcohol	< 3	67-63-0	NA	N/A	N/A

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes
Skin Contact: Wash skin with deluge of water for at least 15 minutes
Ingestion: Induce vomiting as directed by medical personnel
Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Section 5. Physical Data

NΑ

60-70%

Physical State Liquid	Appearance Black, slightly viscous liquid	Odor Threshold (ppm) N/A	Solubility Soluble in water	Auto-ignition Temp N/A
Vapor Pressure <1 mm Hg 25C	Vapor Density (air=1): 2.62	Evaporation Rate	Boiling Point over 200°F	Flash Point CC over 200°F
pH	Specific Gravity	Coeff, Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.02-1.14	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%)	Flame Propagation Rate	Flammability Classification	on	

N/Α

Conditions NΑ

Fl. Pt - Auto Ignition - Flammable Limits Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper grounding during transfer is recommended.

Hazardous Combustion Products

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stable

Flammability

NΑ

Conditions to avoid

Temperature extremes

Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity NΑ

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye Skin May cause redness or irritation

Absorption

Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

Reproductive Toxicity

N/Α

NΑ

Teratogenic and Mutagenic Effects

Exposure Limits Ammonium Hydroxide Black Pigment Dispersion Isopropyl Alcohol

OSHA PEL TWA N/Α 3.5mg NΑ

ACGIHTLY TWA WΑ 3.5mg 400ppm

STEL WΑ WΑ N/Α

TWAEV (Ont.) WA NΑ NΑ

NΑ NΑ N/Α

RCRA Regulated

CAA 112 Reg. Flam. Substance

STEV (Ont.)

CEV (Ont.) WΑ WA NΑ

Section 9. Regulatory Information OSHA Hazardous Cal. Prop. 65

Non hazardous SARA 302/304 Not listed

Not listed **SARA 313** Not listed

CERCLA 102A Not listed

N/Α

N/Α

Canadian WHMIS

RO NΑ

WΑ

CWA 307 CWA 311 N/Α NΑ

TSCA Inventory Listed

EEC Flammability Not flammable

CAA 112 Release Prevention

CEPA DSL NΑ

Proper US DOT Shipping Name Not regulated

CAA 112 Reg. Toxic Substance

TDG Classification Not listed

IATA Classification Not listed

Limited Quantity No



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier Tissue Marking Dye, Blue Product Use Margin Identification Date Prepared Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG022

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	N/A	NA	N A
Blue Pigment Dispersion	< 15	147-14-8	N /A	N/A	NA
Isopropyl Alcohol	<3	67-63-0	N/A	N/A	N/A

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes Skin Contact: Wash skin with deluge of water for at least 15 minutes Ingestion: Induce vomiting as directed by medical personnel

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Section 5. Physical Data

60-70%

Physical State Liquid	Appearance Blue, slightly viscous liquid	Odor Threshold (ppm) N/A	Solubility Soluble in water	Auto-ignition Temp N/A
Vapor Pressure <1 mm Hg 25C	Vapor Density (air=1): 2.62	Evaporation Rate N/A	Boiling Point over 200°F	Flash Point CC over 200°F
рН	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.02-1.14	N /A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%)	Flame Propagation Rate	Flammability Classification	on	

WSDS Tissue Marking Dye - Blue

Section 6. Means to Extinguish

Flammability N/Α

Conditions

N/Α

Fl. Pt - Auto Ignition - Flammable Limits

Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper grounding during transfer is recommended.

Hazardous Combustion Products

N/A

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

Conditions to avoid Temperature extremes Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity

NΑ

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye

May cause redness or irritation

Skin Absorption Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

Reproductive Toxicity

N/A

Teratogenic and Mutagenic Effects

WA

Exposure Limits	OSHA PEL TWA	ACGIH TLV TWA	STEL	TWAEV (Ont.)	STEV (Ont.)	CEV (Ont.)
Ammonium Hydroxide	N/A	NA	NA	N/A	N⁄A	N/A
Blue Pigment Dispersion	NA	NA	NA	N/A	N/A	N/A
Isopropyl Alcohol	NA	400ppm	N/A	N/A	N/A	N/A

Section 9. Regulatory Information

OSHA Hazardous	Cal. Prop. 65	Canadian WHMIS	RCRA Regulated
Non hazardous	Not listed	N/A	N/A
SARA 302/304	SARA 313	CERCLA 102A	RQ
Not listed	Not listed	Not listed	N/A
CWA 307	CWA 311	CAA 112 Release Prevention	CAA 112 Reg. Flam. Substance
N/A	N/A	N/A	N/A
CAA 112 Reg. Toxic Substance	TSCA Inventory	EEC Flammability	CEPA DSL
N/A	Listed	Not flammable	N/A
Proper US DOT Shipping Name	TDG Classification	IATA Classification	Limited Quantity
Not regulated	Not listed	Not listed	No



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier

Tissue Marking Dye, Green

Product Use

Margin Identification

Date Prepared

Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG026

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Googles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	₩A	N/A	N/A
Green Pigment Dispersion	< 15	1328-53-6	N/A	N/A	N/A
Isopropyl Alcohol	<3	67-63-0	NA	N /A	NA

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes Skin Contact: Wash skin with deluge of water for at least 15 minutes Ingestion: Induce vomiting as directed by medical personnel

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Section 5. Physical Data

N/Α

60-70%

Physical State Liquid	Appearance Green, slightly viscous liquid	Odor Threshold (ppm) N/A	Solubility Soluble in water	Auto-ignition Temp N/A
Vapor Pressure	Vapor Density	Evaporation Rate	Boiling Point	Flash Point CC
<1 mm Hg 25C	(air=1): 2.62	NA	over 200°F	over 200°F
pН	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.21	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%)	Flame Propagation Rate	Flammability Classification	on	

N/Α

Flammability NΑ

Conditions

NΑ

Fl. Pt - Auto Ignition - Flammable Limits

Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper

grounding during transfer is recommended.

Hazardous Combustion Products

WA

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

Conditions to avoid

Temperature extremes

Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye Skin May cause redness or irritation

Absorption

Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

Reproductive Toxicity

N/Α

Teratogenic and Mutagenic Effects

NΑ

Exposure Limits	OSHA PEL TWA	ACGIHTLV TWA	STEL	TWAEV (Ont.)	STEV (Ont.)	CEV (Ont.)
Ammonium Hydroxide	N/A	NA	N/A	N/A	N/A	N/A
Green Pigment Dispersion	n N/A	NA	NA	N/A	N/A	N/A
Isopropyl Alcohol	N/A	400ppm	₩A	N∕A	N/A	N/A

Section 9. Regulatory Information

OSHA Hazardous	Cal, Prop. 65	Canadian WHMIS	RCRA Regulated
Non hazardous	Not listed	N/A	N/A
SARA 302/304	SARA 313	CERCLA 102A	RQ
Not listed	Not listed	Not listed	N/A
CWA 307	CWA 311	CAA 112 Release Prevention	CAA 112 Reg. Flam. Substance
N/A	N/A	N/A	N/A
CAA 112 Reg. Toxic Substance	TSCA Inventory	EEC Flammability	CEPA DSL
N/A	Listed	Not flammable	N/A
Proper US DOT Shipping Name	TDG Classification	IATA Classification	Limited Quantity
Not regulated	Not listed	Not listed	No



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier

Tissue Marking Dye, Orange

Product Use

Margin Identification

Date Prepared

Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG025

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	N/A	N/A	N/A
Orange Pigment Dispersion	< 15	15793-73-4	N/A	N/A	N/A
Isopropyl Alcohol	<3	67-63-0	N/A	N/A	₩A

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes
Skin Contact: Wash skin with deluge of water for at least 15 minutes
Ingestion: Induce vomiting as directed by medical personnel
Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Physical State Liquid	Appearance Orange, slightly viscous liquid	Odor Threshold (ppm) N/A	Solubility Soluble in water	Auto-ignition Temp N∕A
Vapor Pressure <1 mm Hg 25C	Vapor Density (air=1): 2.62	Evaporation Rate N/A	Boiling Point over 200°F	Flash Point CC over 200°F
pН	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.3	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%)	Flame Propagation Rate	Flammability Classification	on	
60-70%	N/A	N/A		

Flammability

Conditions NΑ

Fl. Pt - Auto Ignition - Flammable Limits

Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper

grounding during transfer is recommended.

Hazardous Combustion Products

NΑ

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

Conditions to avoid Temperature extremes Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity

Hazardous Polymerization

Will not occur

Incompatibility Oxiders

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye Skin May cause redness or irritation

Absorption

Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

Reproductive Toxicity

NΑ

Teratogenic and Mutagenic Effects

Exposure Limits	OSHA PEL TWA	ACGIHTLYTWA	STEL	TWAEV (Ont.)	STEV (Ont.)	CEV (Ont.)
Ammonium Hydroxide	N/A	N/A	N⁄Α	N/A	N∕A	NA
Orange Pigment Dispersi	ion N/A	N∕A	N/A	N/A	NA	N/A
Isopropyl Alcohol	N∕A	400ppm	N⁄A	N/A	N/A	NA

Section 9. Regulatory Information

OSHA Hazardous	Cal. Prop. 65	Canadian WHMIS	RCRA Regulated
Non hazardous	Not listed	N/A	N/A
SARA 302/304	SARA 313	CERCLA 102A	RQ
Not listed	Not listed	Not listed	N/A
CWA 307	CWA 311	CAA 112 Release Prevention	CAA 112 Reg. Flam. Substance
N/A	N/A	N/A	N/A
CAA 112 Reg. Toxic Substance	TSCA Inventory	EEC Flammability	CEPA DSL
N/A	Listed	Not flammable	N/A
Proper US DOT Shipping Name	TDG Classification	IATA Classification	Limited Quantity
Not regulated	Not listed	Not listed	No



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier Tissue Marking Dye, Red Product Use Margin Identification Date Prepared Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG024

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	N/A	WA	N/A
Red Pigment Dispersion	< 15	1047-16-1	N/A	N /A	N/A
Isopropyl Alcohol	<3	67-63-0	NVA	N/A	N/A

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes
Skin Contact: Wash skin with deluge of water for at least 15 minutes
Ingestion: Induce vomiting as directed by medical personnel
Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Physical State Liquid	Appearance Red, slightly viscous liquid	Odor Threshold (ppm) N/A	Solubility Soluble in water	Auto-ignition Temp N/A
Vapor Pressure	Vapor Density	Evaporation Rate	Boiling Point	Flash Point CC
<1 mm Hg 25C	(air=1): 2.62	N/A	over 200°F	over 200°F
pH	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.02-1.14	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%) 60-70%	Flame Propagation Rate N/A	Flammability Classification	on	

Flammability WΑ

Conditions

NΑ

Fl. Pt - Auto Ignition - Flammable Limits

Fi. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper

grounding during transfer is recommended.

Hazardous Combustion Products

N/A

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

Conditions to avoid

Temperature extremes

Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity WΑ

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye

May cause redness or irritation

Skin Absorption Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

Reproductive Toxicity

N/Α

Teratogenic and Mutagenic Effects

Not regulated

N/Α

OSHA PEL TWA **ACGIHTLYTWA** STEL **Exposure Limits** NΑ WΑ WΑ Ammonium Hydroxide N/Α Red Pigment Dispersion N/Α WA Isopropyi Alcohol NΑ 400ppm WA

Not listed

TWAEV (Ont.) STEV (Ont.) NΑ N/Α NΑ NΑ WA N/A

No

CEV (Ont.)

N/Α

N/Α

N/Α

Section 9. Regulatory Information

Canadian WHMIS RCRA Regulated OSHA Hazardous Cal. Prop. 65 Not listed WΑ Non hazardous SARA 302/304 **SARA 313** CERCLA 102A RQ Not listed NΑ Not listed Not listed CAA 112 Release Prevention CAA 112 Reg. Flam. Substance CWA 307 CWA 311 NΑ N/A WΑ CEPA DSL **EEC Flammability** CAA 112 Reg. Toxic Substance TSCA Inventory Listed Not flammable NΑ IATA Classification TDG Classification Limited Quantity Proper US DOT Shipping Name

Not listed



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier

Tissue Marking Dye, Purple

Product Use

Margin Identification

Date Prepared

Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020,BG027

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydraxide	< 5	1336-21-6	N/A	N/A	N/A
Violet Pigment Dispersion	< 15	1325-82-2	N/A	N∕A	NA
Isopropyl Alcohol	<3	67-63-0	N/A	₩A	N/A

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes
Skin Contact: Wash skin with deluge of water for at least 15 minutes
Ingestion: Induce vomiting as directed by medical personnel
Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Physical State	Appearance	Odor Threshold (ppm)	Solubility	Auto-ignition Temp
Liquid	Violet, slightly viscous liquid	N/A	Soluble in water	N/A
Vapor Pressure	Vapor Density	Evaporation Rate	Boiling Point	Flash Point CC
<1 mm Hg 25C	(air=1): 2.62	N/A	over 200°F	over 200°F
pH	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.02-1.14	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%) 60-70%	Flame Propagation Rate N/A	Flammability Classification	on	

MSDS Tissue Marking Dye - Purple

Section 6. Means to Extinguish

Flammability N/A

Conditions

Fl. Pt - Auto Ignition - Flammable Limits Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper grounding during transfer is recommended.

Hazardous Combustion Products

N/A

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

N/A

Conditions to avoid

Temperature extremes

Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye Skin May cause redness or irritation

Absorption

Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

NΑ

Reproductive Toxicity

NΑ

Teratogenic and Mutagenic Effects

Exposure Limits Ammonium Hydroxide Violet Pigment Dispersion isopropyl Alcohol

OSHA PEL TWA N/A

WA

10mg/M3

ACGIHTLY TWA NΑ 10mg/M3

400ppm

STEL N/Α NΑ WA TWAEV (Ont.) WΑ N/Α

N/A

STEV (Ont.) WΑ N/Α N/Α

WΑ

RQ

NΑ

RCRA Regulated

CEV (Ont.) WΑ NΑ WΑ

Section 9. Regulatory Information

Non hazardous SARA 302/304 Not listed

Not regulated

CAA 112 Reg. Toxic Substance

Proper US DOT Shipping Name

CWA 307

WΑ

OSHA Hazardous

SARA 313 Not listed

> CWA 311 NΑ

TSCA Inventory Listed

Cal. Prop. 65

Not listed

TDG Classification Not listed

CAA 112 Release Prevention

Canadian WHMIS

CERCLA 102A

EEC Flammability

IATA Classification

Not flammable

Not listed

Not listed

N/A

CAA 112 Reg. Flam. Substance

CEPA DSL WA

Limited Quantity



Tissue Marking Dyes

Section 1. Product and Preparation Information

Product Identifier

Tissue Marking Dye, Yellow

Product Use

Margin Identification

Date Prepared

Dec. 2009

Synonyms / Chemical Name

None

Reorder Number(s): BG020, BG023

Manufacturer/ Preparer

Emergency Contact

Chemtrec USA and Canada 800.424.9300

Section 2. Protective Measures



Personal Protection

Eyes: Goggles

Hands: Latex or nitrile gloves

Body: Laboratory coat

Respiratory Wear: approved/certified respirator if airborne concentrations exceed exposure limits





Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ammonium Hydroxide	< 5	1336-21-6	N/A	NA NA	N/A
Yellow Pigment Dispersion	< 15	6358-31-2	N/A	N/A	N/A
Isopropyl Alcohol	< 3	67-63-0	N/A	N/A	WA

Section 4. First Aid Measures

Eye Contact: Flush eyes with flowing water for at least 15 minutes
Skin Contact: Wash skin with deluge of water for at least 15 minutes
Ingestion: Induce vomiting as directed by medical personnel
Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

Physical State	Appearance	Odor Threshold (ppm)	Solubility	Auto-ignition Temp
Liquid	Yellow, slightly viscous liquid	N/A	Soluble in water	N/A
Vapor Pressure	Vapor Density	Evaporation Rate	Boiling Point	Flash Point CC
<1 mm Hg 25C	(air=1): 2.62	N/A	over 200°F	over 200°F
pH	Specific Gravity	Coeff. Water/oil Dist.	Melting Point	Flammable Limits
8.5-10	1.02-1.14	N/A	N/A	UEL- N/A LEL:- N/A
Volatility/Vol (%) 60-70%	Flame Propagation Rate N/A	Flammability Classification	on	

Flammability NΑ

Conditions

Fl. Pt - Auto Ignition - Flammable Limits Fl. Pt-2.6/12.5% by volume

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper

grounding during transfer is recommended.

Hazardous Combustion Products

WA

Means to Extinguish

Small fire, use dry chemical powder. Large fire, use alcohol foam or fog

Section 7. Reactivity

Stability Stable

Conditions to avoid Temperature extremes Hazardous Decomposition Products

Oxides of carbon (mono, di)

Conditions of Reactivity NΑ

Hazardous Polymerization

Will not occur

Incompatibility Oxidizers

Section 8. Toxicological Properties

Routes of Entry Absorbed through the skin, eyes, inhalation and ingestion

Target Organs N/A

Effects of Acute Exposure

Eye Skin May cause redness or irritation

Absorption

Prolonged use may cause irritation or defatting May be absorbed through the skin, eyes

Inhalation

Slightly hazardous if inhaled

Ingestion

May cause blindness, nausea, damage to GI tract

Effects of Chronic Exposure Breathing of vapors may cause nasal and respiratory irritation, nausea, headaches, dizziness, pulmonary edema and pneumonitis.

May cause damage to central nervous system. Prolonged use may cause skin irritation or defatting.

Carcinogenic Effects

NΑ

Reproductive Toxicity

NΑ

Teratogenic and Mutagenic Effects

ACGIHTLYTWA STEL TWAEV (Ont.) STEV (Ont.) CEV (Ont.) **Exposure Limits** OSHA PEL TWA WΑ N/Α NΑ N/Α NΑ Ammonium Hydroxide NΑ N/Α N/Α WΑ NΑ NΑ Yellow Pigment Dispersion WΑ NΑ N/A WA N/A Isopropyl Alcohol WΑ 400ppm

Section 9. Regulatory Information

Canadian WHMIS RCRA Regulated OSHA Hazardous Cal. Prop. 65 Not listed N/Α N/A Non hazardous CERCLA 102A SARA 302/304 **SARA 313** RQ Not listed N/Α Not listed Not listed CAA 112 Release Prevention CAA 112 Reg. Flam. Substance CWA 307 CWA 311 WA WΑ **EEC Flammability** CEPA DSL CAA 112 Reg. Toxic Substance TSCA Inventory Listed Not flammable NΑ TDG Classification IATA Classification Limited Quantity Proper US DOT Shipping Name Not listed Not listed No Not regulated