

MATERIAL SAFETY DATA SHEET

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Section I: IDENTIFICATION

Date Prepared: 10/24/06
Product Name: Gram Stain Set, Crystal Violet *Item Number:* 400322, 400342
Emergency Phone, Infotrac: 800-535-5053

Section II: HAZARDOUS INGREDIENTS

<i>Hazardous Component(s):</i>	<i>CAS#</i>	<i>OHSA PEL, ACGIH TLV/STEL(PPM)</i>	<i>NFPA</i>	
Phenol < 1%	108-95-2	5	Health	1
Methanol < 1%	67-56-1	200	Flammability	1
Ethanol ~11%	64-17-5 1000	1000/NR	Reactivity	0

Section III: PHYSICAL DATA

Boiling Point: ~200°F *Specific Gravity (H₂O = 1):* ~1
Vapor Pressure mm Hg/20°C: NR *Percent Volatile by Vol:* 11%
Vapor Density (Air 1:1): >1 *Evaporation Rate (ether = 1):* >NR
Solubility in H₂O: Complete *Appearance & Odor:* Purple liquid, phenolic odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: 62°F *Flammable Limits:* LEL, NA UEL, NA
Extinguishing Media: Water spray, dry chemical, CO₂ and foam for alcohol
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.
Unusual Fire & Explosion Hazards: Eliminate potential sources of ignition.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers and acids
Hazardous Decomposition or Byproducts: Oxides of carbon, nitrogen and chlorine
Hazardous Polymerization: Does not occur *Conditions to Avoid:* Excessive heat

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion
Acute: Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting.
Chronic: May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.
Carcinogenicity: Not classified as a human carcinogen.
Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.

MATERIAL SAFETY DATA SHEET

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Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persist.

Ingestion: Rinse mouth with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Eliminate source of ignition in the vicinity of the spill or released vapor. Isolate the spill area with sand, or other absorbent material. Place all contaminated material in a closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use precautions for combustible liquids. Avoid excessive heat and sources of ignition. Use in ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under an approved fume hood or NIOSH approved respirator.

Ventilation: Mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety Glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. HealthLink shall not be held liable for any damage resulting from handling or contact with this product.

MATERIAL SAFETY DATA SHEET

1 OF 2

Section I: IDENTIFICATION

Product Name: Gram Stain Set, Lugol's Iodine
Concentrate, Diluent

Date Prepared: 10/24/06
Item Number: 400314, 400342
Emergency Phone, Infotrac: 800-535-5053

Section II: INGREDIENTS

Component(s):	CAS#	OSHA PEL, ACGIH TLV/STEL		NFPA	
Iodine	< 1%	7553-56-2	NR	NR/0.1 ppm	Health 1
Potassium Iodide	< 1%	7681-11-0	NR		Flammability 0
					Reactivity 0

Section III: PHYSICAL DATA

Boiling Point: ~ 212°F
Vapor Pressure mm Hg/20°C: 14
Vapor Density (Air 1:1): 1
Solubility in H₂O: Complete

Specific Gravity (H₂O = 1): ~1
Percent Volatile by Vol: 5%
Evaporation Rate (ether = 1): >1
Appearance & Odor: Reddish-brown liquid, iodine odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: NA
Flammable Limits: LEL, NA UEL, NA
Extinguishing Media: Water spray, dry chemical, CO₂ and foam
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.
Unusual Fire & Explosion Hazards: Normal safety precautions.

Section V: REACTIVITY

Stability: Stable
Material to Avoid: Strong oxidizers, reducing agents, acids or metals
Hazardous Decomposition or Byproducts: Iodate oxides
Hazardous Polymerization: Does not occur
Conditions to Avoid: Excessive heat

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion
Acute: Vapors may cause eyes, skin and respiratory irritation.
Chronic: Poisoning may cause gastrointestinal disturbances, convulsions, circulatory problems, blood toxicity and damage kidneys.
Carcinogenicity: Not classified as a human carcinogen.
Signs/Symptoms of Exposure: Skin and respiratory irritation.

NOTE: Product is not expected to present a health hazard if following normal good laboratory practices.
Note: Iodine Concentrate is slightly corrosive!

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Gram Stain, Lugol's Iodine, 2 OF 2

Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persist.

Ingestion: Rinse mouth with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Isolate the spill area with sand, or other absorbent material. Place all contaminated material in a closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use normal precautions for liquids. Avoid excessive heat. Use in ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under fume hood or NIOSH approved respirator.

Ventilation: In ventilated areas, mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

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HealthLink
3611 St. Johns Bluff Road, Suite 1, Jacksonville, FL 32224
904-996-7758

MATERIAL SAFETY DATA SHEET

1 OF 2

Section I: IDENTIFICATION

Product Name: Gram Stain Set, Decolorizer

Date Prepared: 10/24/06

Item Number(s): 400331, 400342

Emergency Phone, Infotrac: 800-535-5053

Section II: COMPOSITION

<i>Component(s):</i>	<i>CAS Number</i>	<i>OHSA PEL, ACGIH TLV/STEL</i>		<i>NFPA</i>	
Acetone < 20%	67-64-1	750	750/1000	Health	1
Isopropanol < 80%	666-52-4	980	980/1230	Flammability	3
				Reactivity	0

Section III: PHYSICAL DATA

<i>Boiling Point:</i>	60°F	<i>Specific Gravity (H₂O = 1):</i>	0.8
<i>Vapor Pressure mm Hg/20 °C:</i>	>50	<i>Percent Volatile by Vol:</i>	91%
<i>Vapor Density (Air 1:1):</i>	~1.6	<i>Evaporation Rate (ether = 1):</i>	>1
<i>Solubility in H₂O:</i>	Complete	<i>Appearance & Odor:</i>	Clear liquid/sweet odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: 45°F TCC *Flammable Limits:* LEL 3.5 UEL 18

Extinguishing Media: Water spray, dry chemical, CO₂ and foam for alcohol

Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.

Unusual Fire & Explosion Hazards: Eliminate sources of ignition. Burns with invisible flame.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers, chromic anhydride, organic acids

Hazardous Decomposition or Byproducts: Oxides of carbon, ketones

Hazardous Polymerization: Does not occur *Conditions to Avoid:* Excessive heat, sparks or flames

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion *Target Organs:* Kidneys, nervous system, liver and eyes

Acute: Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting.

Chronic: May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.

Carcinogenicity: Not classified as a human carcinogen.

Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.

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MATERIAL SAFETY DATA SHEET

Gram Stain Decolorizer, 2 OF 2

Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persist.

Ingestion: Rinse mouth with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Eliminate source of ignition in the vicinity of the spill or released vapor. Isolate the spill area with sand, or other absorbent material. Place all contaminated material in closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use precautions for flammable liquids. Avoid excessive heat and sources of ignition. For large quantities, store in flammable safety cabinet. Use in well-ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under an approved fume hood or NIOSH approved respirator.

Ventilation: Special flammable exhaust hood if vapor concentration is high. In well-ventilated areas, mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant ***Eye Protection:*** Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

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MATERIAL SAFETY DATA SHEET

Section I: IDENTIFICATION

Product Name: **Gram Stain Set, Safranin**

Date Prepared: 10/24/06

Item Number(s): 400335, 400342

Emergency Phone, Infotrac: 800-535-5053

Section II: COMPOSITION

<i>Component(s):</i>	<i>CAS Number</i>	<i>OHSA PEL, ACGIH TLV/STEL</i>		<i>NFPA</i>	
Methanol < 1%	67-56-1	200	200/250	Health	1
Ethanol <19%	64-17-5	1000	1000/NR	Flammability	3
Safranin < 1%	477-73-6	NR		Reactivity	0

Section III: PHYSICAL DATA

Boiling Point: ~198°F

Vapor Pressure mm Hg/20 °C: 45

Vapor Density (Air 1:1): 1.4

Solubility in H₂O: Complete

Specific Gravity (H₂O = 1): <1

Percent Volatile by Vol: 19%

Evaporation Rate (ether = 1): >1

Appearance & Odor: Reddish/purple liquid/alcohol odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: 55°F TCC

Flammable Limits: LEL 3.5

UEL 19

Extinguishing Media: Water spray, dry chemical, CO₂ and foam for alcohol

Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.

Unusual Fire & Explosion Hazards: Eliminate sources of ignition. Burns with invisible flame.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers, chromic anhydride, perchloric acids etc.

Hazardous Decomposition or Byproducts: Oxides of carbon and nitrogen

Hazardous Polymerization: Does not occur

Conditions to Avoid: Excessive heat, sparks or flames

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion *Target Organs:* Kidneys, nervous system, liver and eyes

Acute: Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting.

Chronic: May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.

Carcinogenicity: Not classified as a human carcinogen.

Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.

MATERIAL SAFETY DATA SHEET

Gram Stain Safranin, 2 OF 2

Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persist.

Ingestion: Rinse mouth with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Eliminate source of ignition in the vicinity of the spill or released vapor. Isolate the spill area with sand, or other absorbent material. Place all contaminated material in a closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use precautions for flammable liquids. Avoid excessive heat and sources of ignition. For large quantities, store in flammable safety cabinet. Use in well-ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under an approved fume hood or NIOSH approved respirator.

Ventilation: Special flammable exhaust hood if vapor concentration is high. In well-ventilated areas, mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

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