KACEY INC – VETI STAIN PRODUCTS

PART # 10143 Hematology (REFILL KIT)  
PART # 0146 Hematology Starter Kit  
PART # 10147 Hematology Neat Stain Kit  
KACEY INC  
SOLUTION # 1 Three Step (500 ML) Refill – Starter Kit & Neat Stain  
MATERIAL SAFETY DATA SHEET  

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Section I: IDENTIFICATION  

<table>
<thead>
<tr>
<th>Product Name: SOLUTION Fixative</th>
<th>Date Prepared: 01/13</th>
<th>Item Number(s): 401</th>
<th>Emergency Phone: 828 258-1482</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component(s): Methanol Fast Green</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section II: HAZARDOUS INGREDIENTS  

<table>
<thead>
<tr>
<th>Hazardous Component(s):</th>
<th>CAS Number</th>
<th>OHSA PEL, ACGIH TLV/STEL</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Alcohol 100%</td>
<td>67-56-1</td>
<td>200/250</td>
<td></td>
</tr>
<tr>
<td>Non-Hazardous Component</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Fast Green</td>
<td>&lt;1%</td>
<td>2353-45-9</td>
<td>NA</td>
</tr>
</tbody>
</table>

Section III: PHYSICAL DATA  

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>148°F</td>
</tr>
<tr>
<td>Specific Gravity (H₂O = 1)</td>
<td>0.79</td>
</tr>
<tr>
<td>Vapor Pressure mm Hg/20°C</td>
<td>96</td>
</tr>
<tr>
<td>Percent Volatile by Vol</td>
<td>91%</td>
</tr>
<tr>
<td>Vapor Density (Air 1:1)</td>
<td>1.11</td>
</tr>
<tr>
<td>Evaporation Rate (ether = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Complete</td>
</tr>
<tr>
<td>Appearance &amp; Odor</td>
<td>Blue Liquid/Pungent Odor</td>
</tr>
</tbody>
</table>

Section IV: FIRE/EXPLOSION HAZARD  

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>54°F TCC</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>LEL 6.7 UEL 36.5</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Water Spray, Dry Chemical, CO₂ and Foam for Alcohol</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.</td>
</tr>
<tr>
<td>Unusual Fire &amp; Explosion Hazards</td>
<td>Eliminate sources of ignition. Burns with invisible flame.</td>
</tr>
</tbody>
</table>

Section V: REACTIVITY  

<table>
<thead>
<tr>
<th>Stability</th>
<th>Material to Avoid</th>
<th>Hazardous Decomposition or Byproducts</th>
<th>Hazardous Polymerization</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>Strong oxidizers, chromic anhydride, perchloric acids etc.</td>
<td>Oxides of carbon</td>
<td>Does not occur</td>
<td>Excessive heat, sparks or flames</td>
</tr>
</tbody>
</table>

Section VI: HEALTH HAZARDS  

<table>
<thead>
<tr>
<th>Route of Entry</th>
<th>Acute</th>
<th>Chronic</th>
<th>Carcinogenicity</th>
<th>Signs/Symptoms of Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation, Skin and Ingestion</td>
<td>Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting. May cause gastrointestinal disturbances and convulsions.</td>
<td>May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.</td>
<td>Not classified as a human carcinogen.</td>
<td>Vision blurring, drowsiness and headache.</td>
</tr>
</tbody>
</table>
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 thoroughly with water, provide 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 close 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 suggest 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.

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

Product Name, Solution I:  
Item Number(s): 402 
Emergency Phone: 828 258-1482

Date Prepared: 01/01

Section II: HAZARDOUS INGREDIENTS

Non-Hazardous Component(s):  
Eosin Y <1% 17372-87-1 NA  
Potassium Phosphate <1% 7778-77-0 NA  
Sodium Phosphate <1% 10049-21-0 NA  
Hazardous Component
Sodium Azide Trace 26628-22-8 0.29TWA

Section III: PHYSICAL DATA

Boiling Point: 100°F  
Specific Gravity (H₂O = 1): ~1  
Vapor Pressure mm Hg/20°C: NE  
Percent Volatile by Vol: NA  
Vapor Density (Air 1:1): NE  
Evaporation Rate (ether = 1): >1  
Solubility in H₂O: Complete  
Appearance & Odor: Orange Liquid/Odorless

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: Non-Flammable  
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: May give-off toxic fumes under fire conditions.

Section V: REACTIVITY

Stability: Stable  
Material to Avoid: Some metallic oxides/metal (not in the concentration present)  
Hazardous Decomposition or Byproducts: Oxides of carbon, nitrogen  
Hazardous Polymerization: Does not occur  
Conditions to Avoid: Normal Laboratory Care

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion  
Acute/Chronic: Product is not expected to cause health hazards when utilizing good laboratory practices and the concentration present in the product. Eye and skin irritant. Poisonous if swallowed.  
Carcinogenicity: Not classified as a human carcinogen.  
Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.
KACEY INC

SOLUTION # 2  Three Step (500 ML ) Refill –Starter Kit & Neat Stain

MATERIAL SAFETY DATA SHEET

Section VI: HEALTH HAZARDS

Emergency First Aid:

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

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

Ingestion: Rinse mouth thoroughly 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 close container for disposal.

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

Precautions for Handling and Storing: Normal Laboratory Care

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required.

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. Astraldiagnostics shall not be held liable for any damage resulting from handling or contact with this product.
Section I: IDENTIFICATION

Product Name: Solution #3

Date Prepared: 06/99
Item Number(s): 403
Emergency Phone: 828 258-1482

Section II: HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Non-Hazardous Component(s)</th>
<th>CAS Number</th>
<th>OHSA PEL, ACGIH TLV/STEL</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue</td>
<td>7220-79-3</td>
<td>NA</td>
<td>Health 0</td>
</tr>
<tr>
<td>Potassium Phosphate</td>
<td>7778-77-0</td>
<td>NA</td>
<td>Flammability 0</td>
</tr>
<tr>
<td>Sodium Phosphate</td>
<td>10049-21-0</td>
<td>NA</td>
<td>Reactivity 0</td>
</tr>
</tbody>
</table>

Section III: PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>~100°F</td>
</tr>
<tr>
<td>Specific Gravity (H₂O = 1)</td>
<td>~1</td>
</tr>
<tr>
<td>Vapor Pressure mm Hg/20°C</td>
<td>NE</td>
</tr>
<tr>
<td>Percent Volatile by Vol</td>
<td>NA</td>
</tr>
<tr>
<td>Evaporation Rate (ether = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Complete</td>
</tr>
<tr>
<td>Appearance &amp; Odor</td>
<td>Blue Liquid/Odorless</td>
</tr>
</tbody>
</table>

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: Non-Flammable
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: None

Section V: REACTIVITY

Stability: Stable
Material to Avoid: None
Hazardous Decomposition or Byproducts: Oxides of carbon
Hazardous Polymerization: Does not occur
Conditions to Avoid: Normal Laboratory Care

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion
Acute/Chronic: Product is not expected to cause health hazards when utilizing good laboratory practices.
Carcinogenicity: Not classified as a human carcinogen.

Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.
KACEY INC
SOLUTION # 3 Three Step (500 ML) Refill – Starter Kit & Neat Stain

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 thoroughly with water, provide 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 close container for disposal.

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

Precautions for Handling and Storing: Normal Laboratory Care

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required.

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.

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