1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 6210

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
- Flammable liquid, Category 2
- Corrosive to metals, Category 1
- Skin corrosion, Category 1
- Serious eye damage, Category 1
- Acute toxicity (oral), Category 4
- Acute toxicity (inhalation), Category 4
- Acute toxicity (dermal), Category 4
- Specific Target Organ Toxicity – Single exposure, Category 2
- Specific Target Organ Toxicity – Repeated exposure, Category 1

2.2 GHS Label elements
Signal Word: DANGER

Pictogram

Hazard Statement(s):
- Highly flammable liquid and vapour
- May be corrosive to metals
- Causes severe skin burns and eye damage
- Harmful if swallowed
- Harmful if inhaled
- Harmful in contact with skin
- May cause damage to organs
- Causes damage to organs through prolonged or repeated exposure

Precautionary Statement(s):
Prevention:
- Keep only in original container.
- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof fume hood/electrical/ventilating/light equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.
SAFETY DATA SHEET (SDS)

Part Number: 9150

- Do not eat, drink or smoke when using this product.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Use only outdoors or in a well-ventilated area.

Response:
- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
- Absorb spillage to prevent material damage.
- If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- If swallowed: Rinse mouth. Do NOT induce vomiting.
- If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.
- Specific treatment: see first aid measures in section 4.
- Immediately call a POISON CENTER or doctor/physician.

Storage:
- Store in a corrosive resistant container/container with a resistant inner liner.
- Store in a well ventilated place. Keep cool.
- Store locked up.

Disposal:
- Dispose of contents/container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS
See component SDS

4. FIRST-AID MEASURES
See component SDS

5. FIRE-FIGHTING MEASURES
See component SDS

6. ACCIDENTAL RELEASE MEASURES
See component SDS

7. HANDLING AND STORAGE

  7.1 Precautions for safe handling
  Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

  7.2 Conditions for safe storage, including any incompatibilities
  Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION
See component SDS

9. PHYSICAL AND CHEMICAL PROPERTIES
See component SDS

10. STABILITY AND REACTIVITY
14. TRANSPORT INFORMATION

14.1 DOT (US)

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<td>xx</td>
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<tr>
<td>Packing group</td>
<td>xx</td>
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<tr>
<td>Environmental hazards</td>
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</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

See component SDS

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799

www.newcomerssupply.com

Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol'n A: Alcian Blue Stain 1%, Aqueous
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 4840

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Skin irritation, Category 2
Serious Eye Damage/Eye irritation, Category 2

2.2 GHS Label elements
Signal Word WARNING

Pictogram

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

Precautionary Statement(s):
Prevention:
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.
Response:
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Take off contaminated clothing and wash before reuse.
- If skin irritation occurs: Get medical advice/attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- If eye irritation persists get medical advice/attention
Specific treatment: see first aid measures in section 4

2.3 Description of any hazards not otherwise classified None

2.4 >1% of mixture with unknown acute toxicity None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Acetic Acid Glacial</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>64-19-7</td>
</tr>
</tbody>
</table>
4. FIRST-AID MEASURES

4.1 Description of necessary measures

**Inhalation (breathing)**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin Contact**
IF ON SKIN: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Eye Contact**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

**Ingestion (swallowed)**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**
Health hazard: 1  Fire hazard: 0  Reactivity hazard: 0

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment

Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 10 ppm: use a NIOSH approved full facepiece respirator with an organic vapor cartridge. Increased protection is obtained from full facepiece powered-air purifying respirators.

Where the potential exists for exposure over 100 ppm, use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus operated in a pressure-demand or other positive-pressure mode.

In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Blue tinted liquid
Odor: Mild vinegar odor
Odor threshold: No data available
pH: No data available
Melting point/freezing point: ca. 0°C (ca. 32°F)
Initial boiling point and boiling range: ca. 100°C (ca. 32°F)
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper flammability or explosive limits: No data available
Lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: Similar to water
Solubility(ies): Infinitely soluble with water
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents (especially chromic acid, sodium peroxide and nitric acid), strong reducing agents, metals, strong acids, and strong bases.

10.6 Hazardous decomposition products
Carbon dioxide and carbon monoxide may be released if product is heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Inhalation exposure
Human data (Glacial Acetic Acid): Marked irritation of the eyes, nose, and upper respiratory tract which could not be tolerated for more than 3 minutes was noted at 816 to 1,226 ppm.

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Human data (Glacial Acetic Acid): It has been reported that 50 ppm or more is intolerable to most persons due to intense lacrimation and irritation of the eyes, nose, and throat. It has also been stated that repeated exposures to high concentrations may produce respiratory tract irritation with pharyngeal edema and chronic bronchitis.

Serious eye damage/irritation
Human data (Glacial Acetic Acid): It has been reported that 50 ppm or more is intolerable to most persons due to intense lacrimation and irritation of the eyes, nose, and throat.

**Respiratory or skin sensitization**
Glacial Acetic Acid: It has been stated that repeated exposures to high concentrations may produce respiratory tract irritation with pharyngeal edema and chronic bronchitis.

**Germ cell mutagenicity**
No data available

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Acute toxicity**
Glacial Acetic Acid:
LD50 rat oral 3310 mg/kg
LD50 rabbit skin 1060uL/kg
LD50 mouse intravenous 525mg/kg
LC50 mouse inhalation 5620ppm/1H

**Carcinogenicity**
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

**Additional information**
RTECS: No data available

### 12. ECOLOGICAL INFORMATION

#### 12.1 Ecotoxicity
No data available

#### 12.2 Persistence and degradability
No data available

#### 12.3 Bioaccumulative potential
No data available

#### 12.4 Mobility in soil
No data available

#### 12.5 Other adverse effects
No data available

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste disposal methods
**Contents**
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>DOT (US)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>xx</td>
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<tr>
<td>Proper shipping name</td>
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</tr>
<tr>
<td>Hazard class</td>
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<tr>
<td>Packing group</td>
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</tr>
<tr>
<td>Environmental hazards</td>
<td>No data available</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n B: Ammonium Hydroxide 28-30%, ACS

Part Number: 9150
CAS-No.: Not applicable
SDS Number: 2320

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomerssupply.com
Email: newly@newcomerssupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Corrosive to metals, Category 1
Skin corrosion, Category 1B
Serious eye damage, Category 1
Acute toxicity (oral), Category 4

2.2 GHS Label elements
Signal Word: DANGER

Hazard Statement(s):
· May be corrosive to metals
· Causes severe skin burns and eye damage
· May be harmful if swallowed

Precautionary Statement(s):
Prevention:
· Keep only in original container.
· Do not breathe dust/fume/gas/mist/vapours/spray.
· Wash skin thoroughly after handling.
· Wear protective gloves/protective clothing/eye protection/face protection.
· Do not eat, drink or smoke when using this product.

Response:
· Absorb spillage to prevent material damage.
· IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
· IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
· Wash contaminated clothing before reuse.
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
· IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
· IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
· Specific treatment: see first aid measures in section 4.
· Immediately call a POISON CENTER or doctor/physician.

Storage:

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
Disposal:
- Store locked up.
- Store in a corrosive resistant container/container with a resistant inner liner.

2.3 Description of any hazards not otherwise classified  None
2.4 >1% of mixture with unknown acute toxicity  None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture
Hazardous Components

<table>
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<tr>
<th>Component</th>
<th>Concentration</th>
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<tbody>
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<tr>
<td>CAS-No.</td>
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<tr>
<td></td>
<td>28-30%</td>
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</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion (swallowed)
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
Health hazard: 3  Fire hazard: 1  Reactivity hazard: 0

6. ACCIDENTAL RELEASE MEASURES

www.newcomersupply.com 2 of 6
6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate spill and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
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</thead>
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<tr>
<td>Ammonium Hydroxide</td>
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<td>OSHA PEL</td>
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<td>NIOSH REL</td>
<td>TWA</td>
<td>25 ppm</td>
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<tr>
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<td>NIOSH REL</td>
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<td>35 ppm</td>
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<td>ACGIH TLV</td>
<td>TWA</td>
<td>25 ppm</td>
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<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>35 ppm</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 25 ppm: use a NIOSH approved full facepiece respirator with an acid gas cartridge which is specifically approved for ammonium hydroxide.

Where the potential for high exposure exists, use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Physical state</td>
<td>Colorless liquid</td>
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<tr>
<td>Odor</td>
<td>Pungent ammonia odor</td>
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<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Melting point/freezing point</td>
<td>ca. -72°C (ca. -98°F)</td>
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<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 36°C (ca. 97°F)</td>
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<tr>
<td>Flash point</td>
<td>No data available</td>
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<tr>
<td>Evaporation rate</td>
<td>No data available</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
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<td>Upper flammability or explosive limits</td>
<td>25%</td>
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<tr>
<td>Lower flammability or explosive limits</td>
<td>16%</td>
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<td>Solubility(ies)</td>
<td>Water soluble</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
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<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
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</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Ammonium hydroxide reacts with many heavy metals (such as silver, copper, lead and zinc) and their salts to form explosive compounds and flammable and explosive hydrogen gas. Ammonium hydroxide may react violently with strong acids (such as hydrochloric, sulfuric and nitric); dimethyl sulfate; and halogens. Ammonium hydroxide will react with strong bases (such as sodium hydroxide and potassium hydroxide) to produce ammonia gas. Do not use copper, aluminum or galvanized metals when handling ammonium hydroxide.

10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Ammonium hydroxide: Contact can severely irritate and burn the skin.

Serious eye damage/irritation
Ammonium hydroxide: Contact can severely irritate and burn the eyes.

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
Ammonium Hydroxide:
LD50 rat oral 350 mg/kg

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION
12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number 2672
Proper shipping name Ammonia solutions
Hazard class 8
Packing group III
Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
### 1. PRODUCT AND COMPANY IDENTIFICATION

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1 Product Name:</strong></td>
<td>Movat-Russell Modified Pentachrome Stain Kit, Sol’n C: Hematoxylin 10%, Alcoholic</td>
<td></td>
</tr>
<tr>
<td><strong>Part Number:</strong></td>
<td>9150</td>
<td></td>
</tr>
<tr>
<td><strong>CAS-No.:</strong></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td><strong>SDS Number:</strong></td>
<td>3160</td>
<td></td>
</tr>
</tbody>
</table>

| **1.2 Recommended Use:** | Laboratory Chemicals |

| **1.3 Company:** | Newcomer Supply |
| **Telephone:** | 1-800-383-7799 |
| **Fax:** | 1-608-831-0866 |
| **Website:** | www.newcomersupply.com |
| **Email:** | newly@newcomersupply.com |

### 2. HAZARD(S) IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**GHS Classification**, (in accordance with 29 CFR1910.1200)
- Flammable liquid, Category 2
- Acute toxicity (oral), Category 4
- Acute toxicity (dermal), Category 4
- Acute toxicity (inhalation), Category 4
- Serious Eye Damage/Eye irritation, Category 2A
- Skin irritation, Category 2
- Specific Target Organ Toxicity – Single exposure, Category 2

#### 2.2 GHS Label elements

**Signal Word**
- DANGER

**Pictogram**

**Hazard Statement(s):**
- Highly flammable liquid and vapour
- Harmful if swallowed
- Harmful in contact with skin
- Harmful if inhaled
- Causes serious eye irritation
- Causes skin irritation
- May cause damage to organs

**Precautionary Statement(s):**

**Prevention:**
- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof fume hood/electrical/ventilating/light equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid breathing dust/fume/gas/mist/vapours/spray.

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
Response:
- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
- If skin irritation occurs: Get medical advice/attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- If eye irritation persists get medical advice/attention.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- Specific treatment: see first aid measures in section 4.
- IF exposed or concerned: Get medical advice/attention.

Storage:
- Store in a well ventilated place. Keep cool.
- Store locked up.

Disposal:
- Dispose of contents/container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS-No.</td>
<td></td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>81%</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>4-5%</td>
</tr>
<tr>
<td>67-56-1</td>
<td></td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>4-5%</td>
</tr>
<tr>
<td>67-63-0</td>
<td></td>
</tr>
<tr>
<td>Hematoxylin</td>
<td>10%</td>
</tr>
<tr>
<td>517-28-2</td>
<td></td>
</tr>
</tbody>
</table>

4.1 Description of necessary measures

Inhalation (breathing)
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Skin Contact
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Eye Contact
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion (swallowed)
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
<table>
<thead>
<tr>
<th>Health hazard:</th>
<th>Fire hazard:</th>
<th>Reactivity hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area. Keep product away from heat, flame, ignition sources, and reactive materials. Avoid accumulation of vapor to form explosive concentration. Pay particular attention to low areas where vapor accumulates more easily.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations. Eliminate sources of ignition.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>1000 ppm (1900 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>1000 ppm (1880 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>1000 ppm (1900 mg/m³)</td>
</tr>
</tbody>
</table>
8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Ethyl Alcohol: Where the potential exists for exposure over 1,000 ppm: use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

Exposure to 3,300 ppm is immediately dangerous to life and health. If the possibility of exposure above 3,300 ppm exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder.

In case of emergency, entry into or escape from unknown concentrations select the highest level approved respiratory protection available.

Other Information
None
9.1 Information on basic physical and chemical properties

- Physical state: Brown tinted liquid
- Odor: Alcoholic odor
- Odor threshold: No data available
- pH: No data available
- Melting point/freezing point: ca. -114°C (-173.2°F)
- Initial boiling point and boiling range: ca. 78°C (172-176°F)
- Flash point: 13°C (55.4°F) Closed cup (Ethyl Alcohol)
- Evaporation rate: 1.7 (Ethyl Alcohol)
- Flammability (solid, gas): Liquid is flammable
- Upper flammability or explosive limits: 19% (Ethyl Alcohol)
- Lower flammability or explosive limits: 3.3% (Ethyl Alcohol)
- Vapor pressure: No data available
- Vapor density: No data available
- Relative density: No data available
- Solubility(ies): Water soluble
- Partition coefficient: n-octanol/water: No data available
- Auto-ignition temperature: No data available
- Decomposition temperature: No data available
- Viscosity: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, sparks, open flame, and ignition sources.

10.5 Incompatible materials
Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium concentrated sulfuric acid, potassium and hydrogen peroxides, platinum black, calcium hypochlorite, silver oxide, ammonia, nitric acid, mercuric nitrate, silver nitrate, magnesium perchlorate, isocyanates, mineral acids, and chloroform.

10.6 Hazardous decomposition products
Carbon dioxide and carbon monoxide may be released if product is heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
Inhaling ethyl alcohol, methyl alcohol, and isopropyl alcohol can irritate the nose, throat and lungs causing coughing and/or shortness of breath.

Oral exposure
Oral exposure to ethyl alcohol, methyl alcohol, and isopropyl alcohol can cause headache, drowsiness, nausea and vomiting, and unconsciousness. It can also affect concentration and vision.

Dermal exposure
Contact with ethyl alcohol can irritate the skin.

**Skin corrosion/irritation**
Prolonged or repeated exposure to ethyl alcohol can cause drying and cracking of the skin with peeling, redness and itching.

**Serious eye damage/irritation**
Contact with ethyl alcohol can irritate the eyes.

**Respiratory or skin sensitization**
No data available

**Germ cell mutagenicity**
No data available

**Reproductive toxicity**
Repeated oral exposure to ethyl alcohol may cause spontaneous abortions, as well as birth defects and other developmental problems. This condition is referred to as “fetal alcohol syndrome.” There is limited evidence that oral exposure to ethyl alcohol may decrease fertility in males.

**Specific target organ toxicity - single exposure**
Exposure to ethyl alcohol may affect the liver and the nervous system.

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Acute toxicity**
Ethyl Alcohol:
- LD50 rat oral 3450 mg/kg
- LD50 mouse oral 7060 mg/kg
- LC50 rat inhalation 20000 ppm/10H
- LC50 mouse inhalation 20363 ppm/4H
Hematoxylin:
- LD50 rat oral 400 mg/kg

**Carcinogenicity**
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

**Additional information**
RTECS: No data available

### 12. ECOLOGICAL INFORMATION

#### 12.1 Ecotoxicity
No data available

#### 12.2 Persistence and degradability
No data available

#### 12.3 Bioaccumulative potential
No data available

#### 12.4 Mobility in soil
No data available
12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number
Proper shipping name
Hazard class
Packing group
Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. **PRODUCT AND COMPANY IDENTIFICATION**

1.1 **Product Name:** Movat-Russell Modified Pentachrome Stain Kit, Sol’n D: Ferric Chloride, 10% Aqueous Solution  
**Part Number:** 9150  
**CAS-No.:** Not applicable  
**SDS Number:** 2890

1.2 **Recommended Use:** Laboratory Chemicals

1.3 **Company:** Newcomer Supply  
2505 Parview Road  
Middleton, WI 53562 USA  
**Telephone:** 1-800-383-7799  
**Fax:** 1-608-831-0866  
**Website:** www.newcomerssupply.com  
**Email:** newly@newcomerssupply.com

2. **HAZARD(S) IDENTIFICATION**

2.1 **Classification of the substance or mixture**  
GHS Classification, (in accordance with 29 CFR1910.1200)  
- Corrosive to metals, Category 1  
- Skin corrosion, Category 1B  
- Serious eye damage, Category 1  
- Acute toxicity (oral), Category 4

2.2 **GHS Label elements**

- **Signal Word:** DANGER  
- **Pictogram:**

**Hazard Statement(s):**  
- May be corrosive to metals  
- Causes severe skin burns and eye damage  
- May be harmful if swallowed  

**Precautionary Statement(s):**

**Prevention:**  
- Keep only in original container.  
- Do not breathe dust/fume/gas/mist/vapours/spray.  
- Wash skin thoroughly after handling.  
- Wear protective gloves/protective clothing/eye protection/face protection.  
- Do not eat, drink or smoke when using this product.

**Response:**  
- Absorb spillage to prevent material damage.  
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
- Wash contaminated clothing before reuse.  
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
- Specific treatment: see first aid measures in section 4.  
- Immediately call a POISON CENTER or doctor/physician.

**Storage:**

24 HOUR EMERGENCY CONTACT  
CALL CHEMTREC: 1-800-424-9300  
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
Disposal:
- Dispose of contents/container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
<td>10%</td>
</tr>
<tr>
<td>CAS-No. 7705-08-0</td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion (swallowed)
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
Health: 1 Fire: 0 Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

www.newcomersupply.com
6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
<td>1310-73-2</td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 2 mg/m³: use a NIOSH approved negative pressure, air-purifying, particulate filter respirator with an N, R or P100 filter. More protection is provided by a full facepiece respirator than by a half-mask respirator, and even greater protection is provided by a powered-air purifying respirator.

Leave the area immediately if (1) while wearing a filter or cartridge respirator you can smell, taste, or otherwise detect sodium hydroxide, (2) while wearing particulate filters abnormal resistance to breathing is experienced, or (3) eye irritation occurs while wearing a full facepiece respirator.

Exposure to 10 mg/m³ is immediately dangerous to life and health. If the possibility of exposure above 10 mg/m³ exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder.

In case of emergency, entry into or escape from unknown concentrations, select the highest level

**Other Information**
None

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Translucent, yellow to orange liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint acidic odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity
No data available

#### 10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

#### 10.3 Possibility of hazardous reactions
No data available

#### 10.4 Conditions to avoid
No data available
10.5 **Incompatible materials**
Metals. Will produce toxic and irritating fumes when combined with water. Also avoid exposure to heat, flame, and sparks.

10.6 **Hazardous decomposition products**
No data available

### 11. TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

- **Inhalation exposure**
  No data available

- **Oral exposure**
  No data available

- **Dermal exposure**
  No data available

- **Skin corrosion/irritation**
  Ferric chloride: Contact can severely irritate and burn the skin.

- **Serious eye damage/irritation**
  Ferric chloride: Contact can severely irritate and burn the eyes.

- **Respiratory or skin sensitization**
  No data available

- **Germ Cell mutagenicity**
  No data available

- **Reproductive toxicity**
  No data available

- **Specific target organ toxicity - single exposure**
  No data available

- **Specific target organ toxicity - repeated exposure**
  No data available

- **Aspiration hazard**
  No data available

- **Acute toxicity**
  Ferric Chloride:
  LD50 rat oral 316 mg/kg

- **Carcinogenicity**
  IARC: None of the components are listed
  NTP: None of the components are listed
  OSHA: None of the components are listed

12. **ECOLOGICAL INFORMATION**

12.1 **Ecotoxicity**
No data available

12.2 **Persistence and degradability**
No data available
13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
   Contents
   Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

   Contaminated packaging
   Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
   UN-Number No data available
   Proper shipping name No data available
   Hazard class No data available
   Packing group No data available
   Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com

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Part Number: 9150

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol'n E: Iodine, Verhoeff, Aqueous
   Part Number: 9150
   CAS-No.: Not applicable
   SDS Number: 3340

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
   2505 Parview Road
   Middleton, WI 53562 USA
   Telephone: 1-800-383-7799
   Fax: 1-608-831-0866
   Website: www.newcomersupply.com
   Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
   GHS Classification, (in accordance with 29 CFR1910.1200)
   Skin irritation, Category 2
   Serious Eye Damage/ Eye irritation, Category 2
   Acute toxicity (oral), Category 4
   Acute toxicity (inhalation), Category 4
   Acute toxicity (dermal), Category 4
   Specific Target Organ Toxicity – Single exposure, Category 3
   Specific Target Organ Toxicity – Repeated exposure, Category 1

2.2 GHS Label elements
   Signal Word DANGER

   Pictogram

   Hazard Statement(s):
   · Causes skin irritation
   · Causes serious eye irritation
   · Harmful if swallowed
   · Harmful if inhaled
   · Harmful in contact with skin
   · May cause respiratory irritation
   · May cause drowsiness or dizziness
   · Causes damage to organs through prolonged or repeated exposure

   Precautionary Statement(s):
   Prevention:
   · Wear protective gloves/protective clothing/eye protection/face protection.
   · Wash skin thoroughly after handling.
   · Do not eat, drink or smoke when using this product.
   · Do not breathe dust/fume/gas/mist/vapours/spray.
   · Use only outdoors or in a well-ventilated area.

   Response:
   · IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
   · IF ON SKIN: Gently wash with plenty of soap and water.
   · Take off contaminated clothing and wash before reuse.
   · If skin irritation occurs: Get medical advice/attention.

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
2.3 Description of any hazards not otherwise classified

None

2.4 >1% of mixture with unknown acute toxicity

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Iodine</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7553-56-2</td>
</tr>
<tr>
<td>Name</td>
<td>Potassium Iodide</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7681-11-0</td>
</tr>
<tr>
<td></td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>4%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact
IF ON SKIN: Gently wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If eye irritation persists get medical advice/attention.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion (swallowed)
Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and or effects, acute and delayed

The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture

No data available

5.3 Protective equipment and precautions for fire-fighters

No data available

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

If eye irritation persists get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

No data available
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**

<table>
<thead>
<tr>
<th>Health hazard</th>
<th>Fire hazard</th>
<th>Reactivity hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

#### 6.2 Methods and material for containment and cleaning up

Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing

#### 7.2 Conditions for safe storage, including any incompatibilities

Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control Parameters

Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iodine</td>
<td>7553-56-2</td>
<td>NIOSH REL</td>
<td>C</td>
<td>0.1 ppm (1 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>C</td>
<td>0.1 ppm (1 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>C</td>
<td>0.1 ppm (1 mg/m³)</td>
</tr>
</tbody>
</table>

#### 8.2 Exposure Controls

**Appropriate engineering controls**

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Take measures to keep concentrations below acceptable limits.

#### 8.3 Personal Protective Equipment

**Eye/Face protection**

Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

**Skin Protection**

Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

**Body Protection**

No data available

**Respiratory Protection**

No data available
Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Iodine: Where the potential exists for exposure over 0.01 ppm: (as the inhalable fraction and vapor), use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

Exposure to 2 ppm is immediately dangerous to life and health. If the possibility of exposure above 2 ppm exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder. In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

**Other Information**

None

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Translucent, brown liquid; no precipitate</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ca. 0°C (ca. 32°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 100°C (ca. 32°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Similar to water</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water soluble</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. **STABILITY AND REACTIVITY**

10.1 **Reactivity**

No data available

10.2 **Chemical stability**

Stable in a closed container within label-specified storage temperature and expiration date.

10.3 **Possibility of hazardous reactions**

No data available

10.4 **Conditions to avoid**

No data available

10.5 **Incompatible materials**
Iodine reacts violently or explosively with acetylene; acetaldehyde; metal azides; metal hydrides; and metal carbides. Iodine forms explosive or shock-sensitive compounds when mixed with reducing agents (such as lithium, sodium, aluminum and their hydrides) and liquid ammonia. Iodine will ignite powdered metals (such as antimony, magnesium and zinc) in the presence of water. Iodine is not compatible with combustibles; strong bases (such as sodium hydroxide and potassium hydroxide); halogens (such as chlorine, bromine and chlorine trifluoride); and ethanol.

10.6 Hazardous decomposition products
Hydrogen iodide gas, iodine gas, and potassium oxides. May also produce irritating and toxic fumes when heated.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
Inhaling iodine can irritate the lungs causing coughing and/or shortness of breath.

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Contact with iodine and potassium iodide can severely irritate the skin.

Serious eye damage/irritation
Contact with iodine and potassium iodide can severely irritate the eyes.

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
Inhaling iodine can irritate the lungs causing coughing and/or shortness of breath.

Specific target organ toxicity - repeated exposure
Iodine may cause thyroid gland disturbances. Medical examination advised after repeated exposure.

Aspiration hazard
No data available

Acute toxicity
Iodine:
LD50 rat oral 14000 mg/kg
LD50 rabbit dermal 2000 mg/kg
LC50 rat inhalation 4.588 mg/l/4 hours
Potassium Iodide:
LD50 mouse oral 1000 mg/kg

Carcinogenicity
IARC: None of the components are listed
12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number No data available
Proper shipping name No data available
Hazard class No data available
Packing group No data available
Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
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1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n F: Ferric Chloride 2%, Aqueous
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 2880

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Acute toxicity (oral), Category 4
Skin irritation, Category 2
Serious Eye Damage/Eye irritation, Category 2

2.2 GHS Label elements

Signal Word WARNING
Pictogram

Hazard Statement(s):
· Harmful if swallowed
· Causes skin irritation
· Causes serious eye irritation
Precautionary Statement(s):
Prevention:
· Wear protective gloves/protective clothing/eye protection/face protection.
· Wash skin thoroughly after handling.
· Do not eat, drink or smoke when using this product.
Response:
· IF ON SKIN: Gently wash with plenty of soap and water.
· Take off contaminated clothing and wash before reuse.
· If skin irritation occurs: Get medical advice/attention.
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
· If eye irritation persists get medical advice/attention.
· IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
· Rinse mouth.
· Specific treatment: see first aid measures in section 4.
Disposal:
· Dispose of contents/ container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified None

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture
Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Ferric Chloride</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7705-08-0</td>
</tr>
<tr>
<td></td>
<td>2%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact
IF ON SKIN: Gently wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion (swallowed)
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
| Health hazard: 1 | Fire hazard: 0 | Reactivity hazard: 0 |

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride</td>
<td>1310-73-2</td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>1 mg/m³</td>
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<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 2 mg/m³: use a NIOSH approved negative pressure, air-purifying, particulate filter respirator with an N, R or P100 filter. More protection is provided by a full facepiece respirator than by a half-mask respirator, and even greater protection is provided by a powered-air purifying respirator.

Leave the area immediately if (1) while wearing a filter or cartridge respirator you can smell, taste, or otherwise detect sodium hydroxide, (2) while wearing particulate filters abnormal resistance to breathing is experienced, or (3) eye irritation occurs while wearing a full facepiece respirator.

Exposure to 10 mg/m³ is immediately dangerous to life and health. If the possibility of exposure above 10 mg/m³ exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder.

In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

**Other Information**

None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Physical state**: Clear, colorless liquid
- **Odor**: Odorless
- **Odor threshold**: No data available
- **pH**: No data available
- **Melting point/freezing point**: No data available
- **Initial boiling point and boiling range**: No data available
- **Flash point**: No data available
- **Evaporation rate**: No data available
- **Flammability (solid, gas)**: No data available
- **Upper flammability or explosive limits**: No data available
- **Lower flammability or explosive limits**: No data available
- **Vapor pressure**: No data available
- **Vapor density**: No data available
- **Relative density**: No data available
- **Solubility(ies)**: Water soluble
- **Partition coefficient: n-octanol/water**: No data available
- **Auto-ignition temperature**: No data available
- **Decomposition temperature**: No data available
- **Viscosity**: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions

No data available
10.4 Conditions to avoid
Keep away from combustible materials, heat, flame, and sparks.

10.5 Incompatible materials
Metals. Will produce toxic and irritating fumes when combined with water. Also avoid exposure to heat, flame, and sparks.

10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Ferric chloride: Contact can severely irritate and burn the skin.

Serious eye damage/irritation
Ferric chloride: Contact can severely irritate and burn the eyes.

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
Ferric Chloride:
LD50 rat oral  316 mg/kg

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available
12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents: Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number: No data available
Proper shipping name: No data available
Hazard class: No data available
Packing group: No data available
Environmental hazards: No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION
Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
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1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n G: Sodium Thiosulfate 5%, Aqueous

Part Number: 9150
CAS-No.: Not applicable
SDS Number: 4410

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply

2505 Parview Road
Middleton, WI 53562 USA

Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
None

2.2 GHS Label elements

Signal Word
NONE

Pictogram

Hazard Statement(s):
· None

Precautionary Statement(s):
· None

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Sodium Thiosulfate</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>10102-17-7</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
4.2 Most important symptoms and/or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating

| Health hazard: 0 | Fire hazard: 0 | Reactivity hazard: 0 |

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing dust. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
None of the components require monitoring at the workplace.

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.

8.3 Personal Protective Equipment

Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Translucent, colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ca. 0°C (ca. 32°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 100°C (ca. 32°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Evap. rate of water = 1; 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>18 mm Hg at 20°C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>For water in air = 1; 1</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.222 (mPa)(s) at 20°C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
No data available

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

Strong acids, metal nitrates, iodine, lead, and mercury.
12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods

Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>No data available</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>No data available</td>
</tr>
<tr>
<td>Hazard class</td>
<td>No data available</td>
</tr>
<tr>
<td>Packing group</td>
<td>No data available</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No data available</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n H: Crocein Scarlet 7B Stain, Aqueous
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 2580

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
None

2.2 GHS Label elements
Signal Word 
NONE

Pictogram

Hazard Statement(s):
· None
Precautionary Statement(s):
· None

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture
Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Concentration</td>
</tr>
<tr>
<td>Acetone-Alcohol 1:1</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Crocein Scarlet 7B</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>6226-76-2</td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell.
Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion (swallowed)
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
Health hazard: 1
Fire hazard: 0
Reactivity hazard: 0

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
</tbody>
</table>
8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: Colorless liquid
Odor: Mild vinegar odor
Odor threshold: No data available
pH: 2.8 at 19°C (66°F)
Melting point/freezing point: ca. 0°C (ca. 32°F)
Initial boiling point and boiling range: ca. 100°C (ca. 32°F)
Flash point: No data available
Evaporation rate: Evap. rate of water = 1; 1
Flammability (solid, gas): No data available
Upper flammability or explosive limits: No data available
Lower flammability or explosive limits: No data available
Vapor pressure: 18 mm Hg at 20°C
Vapor density: For water in air = 1; 1
Relative density: Similar to water
Solubility(ies): Infinitely soluble with water
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 1.222 (mPa)(s) at 20°C

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.
10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents (especially chromic acid, sodium peroxide and nitric acid), strong reducing agents, metals, strong acids, and strong bases.

10.6 Hazardous decomposition products
Carbon dioxide and carbon monoxide may be released if product is heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
No data available

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION
12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number
Proper shipping name
Hazard class
Packing group
Environmental hazards
xx
xx
xx
xx
No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.

www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol'n I: Acid Fuchsin Stain, Aqueous
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 4850

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
None

2.2 GHS Label elements
Signal Word: NONE
Pictogram

Hazard Statement(s):
· None
Precautionary Statement(s):
· None

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture
Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Glacial Acetic Acid</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>64-19-7</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

**Ingestion (swallowed)**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 **Most important symptoms and or effects, acute and delayed**
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 **Indication of any immediate medical attention and special treatment needed**
No data available

5. **FIRE-FIGHTING MEASURES**

5.1 **Suitable extinguishing media**
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 **Specific hazards arising from the substance or mixture**
No data available

5.3 **Protective equipment and precautions for fire-fighters**
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>Health hazard:</th>
<th>Fire hazard:</th>
<th>Reactivity hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 **Methods and material for containment and cleaning up**
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 **Conditions for safe storage, including any incompatibilities**
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control Parameters**
Does not contain components with occupational exposure limits.

8.2 **Exposure Controls**
**Appropriate engineering controls**
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.
8.3 Personal Protective Equipment

Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Orange purple-red liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild vinegar odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ca. 0°C (ca. 32°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 100°C (ca. 32°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Evap. rate of water = 1; 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>18 mm Hg at 20°C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>For water in air = 1; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>Similar to water</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Infinitely soluble with water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.222 (mPa)(s) at 20°C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents (especially chromic acid, sodium peroxide and nitric acid), strong reducing agents, metals, strong acids, and strong bases.
10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
No data available

Carcinogenicity
IARC: None of the components are listed
IARC: None of the components are listed
IARC: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available
12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number No data available
Proper shipping name No data available
Hazard class No data available
Packing group No data available
Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n J: Phosphotungstic Acid 5%, Aqueous

Part Number: 9150
CAS-No.: Not applicable
SDS Number: 3960

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Skin corrosion, Category 1A
Serious eye damage, Category 1

2.2 GHS Label elements
Signal Word DANGER

Pictogram

Hazard Statement(s):
· Causes severe skin burns and eye damage

Precautionary Statement(s):
Prevention:
· Wear protective gloves/protective clothing/eye protection/face protection.
· Do not breathe dust/fume/gas/mist/vapours/spray.
· Wash skin thoroughly after handling.
Response:
· IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
· IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
· Wash contaminated clothing before reuse.
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
· IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
· Specific treatment: see first aid measures in section 4.
Storage:
· Store locked up.
Disposal:
· Dispose of contents/ container to an approved waste disposal plant.

2.4 >1% of mixture with unknown acute toxicity None

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Phosphotungstic acid</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>12501-23-4</td>
</tr>
<tr>
<td></td>
<td>5%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion (swallowed)

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and or effects, acute and delayed

The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture

No data available

5.3 Protective equipment and precautions for fire-fighters

Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating

<table>
<thead>
<tr>
<th>Health hazard</th>
<th>Fire hazard</th>
<th>Reactivity hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSOANL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphotungstic Acid</td>
<td>12501-23-4</td>
<td>ACGIH</td>
<td>TWA</td>
<td>5 mg/m³ (as a tungsten soluble compound)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STEL</td>
<td>0.10 mg/m³ (as a tungsten soluble compound)</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: Dark purple to brown liquid
Odor: Odorless
Odor threshold: No data available
pH: No data available
Melting point/freezing point: ca. 0°C (ca. 32°F)
Initial boiling point and boiling range: ca. 100°C (ca. 32°F)
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>~1</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong bases, strong oxidizing agents, strong reducing agents, metals, and organic materials.

10.6 Hazardous decomposition products
Toxic phosphorous oxides may form if heated to dryness.

### 11. Toxicological Information

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
No data available

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number No data available
Proper shipping name No data available
Hazard class No data available
Packing group No data available
Environmental hazards No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

www.newcomersupply.com
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n K: Orange G Stain 1%, Aqueous

Part Number: 9150
CAS-No.: Not applicable
SDS Number: 3680

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Skin irritation, Category 2
Serious Eye Damage/Eye irritation, Category 2

2.2 GHS Label elements
Signal Word: WARNING

Pictogram

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

Precautionary Statement(s):
Prevention:
· Wear protective gloves/protective clothing/eye protection/face protection.
· Wash skin thoroughly after handling.

Response:
· IF ON SKIN: Gently wash with plenty of soap and water.
· Take off contaminated clothing and wash before reuse.
· If skin irritation occurs: Get medical advice/attention.
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
· If eye irritation persists get medical advice/attention.
· Specific treatment: see first aid measures in section 4.

2.3 Description of any hazards not otherwise classified None

2.4 >1% of mixture with unknown acute toxicity None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Acetic Acid Glacial</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>64-19-7</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
4.1 Description of necessary measures

**Inhalation (breathing)**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

**Skin Contact**
IF ON SKIN: Gently wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

**Eye Contact**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

**Ingestion (swallowed)**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**

<table>
<thead>
<tr>
<th></th>
<th>Health hazard</th>
<th>Fire hazard</th>
<th>Reactivity hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment

Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection

Respirators should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Where the potential exists for exposure over 10 ppm: use a NIOSH approved full facepiece respirator with an organic vapor cartridge. Increased protection is obtained from full facepiece powered-air purifying respirators. If while wearing a filter or cartridge respirator you can smell, taste, or otherwise detect acetic acid, or if while wearing particulate filters abnormal resistance to breathing is experienced, or eye irritation occurs while wearing a full facepiece respirator, leave the area immediately. Check to make sure the respirator-to-face seal is still good. If it is, replace the filter or cartridge. If the seal is no longer good, you may need a new respirator.

Where the potential exists for exposure over 100 ppm, use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus operated in a pressure-demand or other positive-pressure mode. In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Translucent, reddish-orange liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild vinegar odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ca. 0°C (ca. 32°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 100°C (ca. 32°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Infinitely soluble with water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents (especially chromic acid, sodium peroxide and nitric acid), strong reducing agents, metals, strong acids, and strong bases.

10.6 Hazardous decomposition products
Carbon dioxide and carbon monoxide may be released if product is heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
Human data (Glacial Acetic Acid): Marked irritation of the eyes, nose, and upper respiratory tract which could not be tolerated for more than 3 minutes was noted at 816 to 1,226 ppm.

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Contact with glacial acetic acid can severely irritate and burn the skin.

Serious eye damage/irritation
No data available
Contact with glacial acetic acid can severely irritate and burn the eyes, leading to eye damage.

**Respiratory or skin sensitization**
It has been stated that repeated exposures to high concentrations of glacial acetic acid may produce respiratory tract irritation with pharyngeal edema and chronic bronchitis.

**Germ cell mutagenicity**
No data available

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Acute toxicity**
Glacial Acetic Acid:
LD50 rat oral  3310 mg/kg
LD50 rabbit skin  1060uL/kg
LD50 mouse intravenous 525mg/kg
LC50 mouse inhalation 5620ppm/1H

**Carcinogenicity**
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

**Additional information**
RTECS: No data available

12. **ECOLOGICAL INFORMATION**

12.1 **Ecotoxicity**
No data available

12.2 **Persistence and degradability**
No data available

12.3 **Bioaccumulative potential**
No data available

12.4 **Mobility in soil**
No data available

12.5 **Other adverse effects**
No data available

13. **DISPOSAL CONSIDERATIONS**

13.1 **Waste disposal methods**
**Contents**
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
14. TRANSPORT INFORMATION

14.1 DOT (US)
- UN-Number: No data available
- Proper shipping name: No data available
- Hazard class: No data available
- Packing group: No data available
- Environmental hazards: No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Movat-Russell Modified Pentachrome Stain Kit, Sol’n L: Acetic Acid 0.5%, Aqueous
Part Number: 9150
CAS-No.: Not applicable
SDS Number: 2000

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
2505 Parview Road
Middleton, WI 53562 USA
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
None

2.2 GHS Label elements
Signal Word: NONE
Pictogram

Hazard Statement(s):
· None
Precautionary Statement(s):
· None

2.3 Description of any hazards not otherwise classified
None

2.4 >1% of mixture with unknown acute toxicity
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture
Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Acetone-Alcohol 1:1</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>0.5%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
**Ingestion (swallowed)**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

4.2 **Most important symptoms and or effects, acute and delayed**
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 **Indication of any immediate medical attention and special treatment needed**
No data available

5. **FIRE-FIGHTING MEASURES**

5.1 **Suitable extinguishing media**
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 **Specific hazards arising from the substance or mixture**
No data available

5.3 **Protective equipment and precautions for fire-fighters**
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**

<table>
<thead>
<tr>
<th>Health hazard:</th>
<th>Fire hazard:</th>
<th>Reactivity hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

6.2 **Methods and material for containment and cleaning up**
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 **Conditions for safe storage, including any incompatibilities**
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control Parameters**
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>STEL</td>
<td>15 ppm (37 mg/m³)</td>
</tr>
</tbody>
</table>
8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: Colorless liquid
Odor: Mild vinegar odor
Odor threshold: No data available
pH: 2.8 at 19°C (66°F)
Melting point/freezing point: ca. 0°C (ca. 32°F)
Initial boiling point and boiling range: ca. 100°C (ca. 32°F)
Flash point: No data available
Evaporation rate: Evap. rate of water = 1; 1
Flammability (solid, gas): No data available
Upper flammability or explosive limits: No data available
Lower flammability or explosive limits: No data available
Vapor pressure: 18 mm Hg at 20°C
Vapor density: For water in air = 1; 1
Relative density: Similar to water
Solubility(ies): Infinitely soluble with water
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 1.222 (mPa)(s) at 20°C

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available
10.5 Incompatible materials
Strong oxidizing agents (especially chromic acid, sodium peroxide and nitric acid), strong reducing agents, metals, strong acids, and strong bases.

10.6 Hazardous decomposition products
Carbon dioxide and carbon monoxide may be released if product is heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Acute toxicity
No data available

Carcinogenicity
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)
UN-Number
No data available
Proper shipping name
No data available
Hazard class
No data available
Packing group
No data available
Environmental hazards
No data available

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
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