1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Bielschowsky, Lester King Modified Stain Kit**
Part Number: 9154
CAS-No.: Not applicable
SDS Number: 6230

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 4
Oxidizing liquid, Category 2
Corrosive to metals, Category 1
Acute toxicity (oral), Category 3
Acute toxicity (dermal), Category 3
Acute toxicity (inhalation), Category 1
Skin corrosion, Category 1
Serious eye damage, Category 1
Skin sensitisation, Category 1
Respiratory sensitization, Category 1
Carcinogenicity, Category 1A
Specific Target Organ Toxicity – Single exposure, Category 1
Specific Target Organ Toxicity – Repeated exposure, Category 1
Reproductive toxicity, Category 1B

2.2 GHS Label elements
Signal Word DANGER

Pictogram

Hazard Statement(s):
· Combustible liquid
· May intensify fire; oxidizer
· May be corrosive to metals
· Toxic if swallowed
· Toxic in contact with skin
· Fatal if inhaled
· Causes serious eye damage
· Causes severe skin burns and eye damage
· May cause an allergic skin reaction
· May cause allergy or asthma symptoms or breathing difficulties if inhaled
· May cause cancer
· Causes damage to organs
· Causes damage to organs through prolonged or repeated exposure
· May damage fertility or the unborn child
Precautionary Statement(s):

Prevention:

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Keep only in original container
- Keep away from heat/sparks/open flames/hot surfaces – No smoking
- Keep/Store away from clothing/…/combustible materials
- Take any precaution to avoid mixing with combustibles
- Do not breathe dust/fume/gas/mist/vapours/spray
- Avoid breathing dust/fume/gas/mist/vapours/spray
- In case of inadequate ventilation wear respiratory 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
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves/protective clothing/eye protection/face protection

Response:

- Absorb spillage to prevent material damage.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- Specific treatment is urgent: see first aid measures in section 4
- Specific treatment: see first aid measures in section 4
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF ON SKIN: Gently wash with plenty of soap and water
- If skin irritation or a rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- 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
- Call a POISON CENTER or doctor/physician if you feel unwell
- Take off contaminated clothing and wash before reuse
- Wash contaminated clothing before reuse
- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- IF exposed or concerned: Get medical advice/attention
- IF exposed: Call a POISON CENTER or doctor/physician
- Get medical advice/attention if you feel unwell

Storage:

- Store in a corrosive resistant container/container with a resistant inner liner
- Store in a well ventilated place. Keep container tightly closed
- 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

Keep away from heat/sparks/open flames/hot surfaces – No smoking. Do not breathe dust/fume/gas/mist/vapours/spray.Wear protective gloves/protective clothing/eye protection/face protection.

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

See component SDS

9. PHYSICAL AND CHEMICAL PROPERTIES

See component SDS

10. STABILITY AND REACTIVITY

See component SDS

11. TOXICOLOGICAL INFORMATION

See component SDS

12. ECOLOGICAL INFORMATION

See component SDS

13. DISPOSAL CONSIDERATIONS

See component SDS

14. TRANSPORT INFORMATION

14.1 DOT (US)

UN-Number

Proper shipping name

Hazard class

Packing group

Environmental hazards No data available

15. REGULATORY INFORMATION

See component SDS

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.

Version 1.0

800-383-7799
www.newcomersupply.com

SAFETY DATA SHEET (SDS)

Revision Date: 5/15/2015

Version 1.0

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Bielschowsky, Lester King Modified Stain Kit, Sol'n A: Silver Nitrate 20%, Aqueous**

Part Number: 9154
CAS-No.: Not applicable
SDS Number: 4260

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)
Oxidizing liquid, Category 2
Acute toxicity (oral), Category 4
Skin corrosion, Category 1A
Serious eye damage, Category 1

2.2 GHS Label elements

Signal Word DANGER

Pictogram

Hazard Statement(s):
- May intensify fire; oxidizer
- Harmful if swallowed
- Combustible liquid
- Flammable solid

Precautionary Statement(s):
Prevention:
- Keep away from heat/sparks/open flames/hot surfaces – No smoking
- Keep/Store away from clothing/…/combustible materials
- Take any precaution to avoid mixing with combustibles
- 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

Response:
- In case of fire: See section 5 for extinction methods
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- 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
- Specific treatment: see first aid measures in section 4

· Call a POISON CENTER or doctor/physician if you feel unwell
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
· IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
· Rinse mouth
· IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Storage:
· Store locked up

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

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

Component		**Concentration**
Name	Silver Nitrate	
CAS-No.	7761-88-8	20%

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

NFPA Rating

Health hazard:	2	Fire hazard:	0	Reactivity hazard:	0	Other	Oxidizer

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.

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

Component	CAS-No.	Regulatory	Value	Parameters
Silver Nitrate	7761-88-8	OSHA PEL	TWA	0.01 mg/m^3
		ACGIH TLV	TWA	0.01 mg/m^3
		NIOSH REL	TWA	0.01 mg/m^3

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 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).
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

No data available

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

Silver nitrate reacts with acetylene, in the presence of ammonia, to form silver acetylide, a sensitive and powerful detonator. Silver nitrate reacts violently with combustibles; chlorosulfonic acid and other acids (such as hydrochloric, sulfuric and nitric); metals; metal carbides; reducing agents (such as lithium, sodium, aluminum and their hydrides); and oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine). Silver nitrate is not compatible with ethylene oxide; charcoal; ammonium hydroxide; ethanol; aziridine; arsenic; sulfur; and many other compounds. Silver nitrate attacks some forms of plastic, rubber and coatings.

10.6 Hazardous decomposition products

Nitrogen oxide, oxygen, and silver oxides

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
Contact with silver nitrate can severely irritate and burn the skin.

Serious eye damage/irritation
Contact with silver nitrate can severely irritate and burn the eyes with possible eye damage.

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
Silver Nitrate:
LD50 rat oral 1173 mg/kg

Carcinogencity
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

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Bielschowsky, Lester King Modified Stain Kit, Sol'n B: Ammonium Hydroxide 28-30%, ACS**

Part Number: 9154
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.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)
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
- Causes serious 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 SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse
- 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
- Specific treatment: see first aid measures in section 4
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- Rinse mouth
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

· Wash contaminated clothing before reuse

Storage:

· Store locked up.

· Store in a corrosive resistant container/container with a resistant inner liner.

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

Component		Concentration
Name	Ammonium Hydroxide	
CAS-No.	1336-21-6	28-30%

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

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

Component	CAS-No.	Regulatory	Value	Parameters
Ammonium Hydroxide	1310-73-2	OSHA PEL	TWA	50 ppm
		NIOSH REL	TWA	25 ppm
		NIOSH REL	STEL	35 ppm
		ACGIH TLV	TWA	25 ppm
		ACGIH TLV	STEL	35 ppm

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

Physical state	Colorless liquid
Odor	Pungent ammonia odor
Odor threshold	No data available
pH	No data available
Melting point/freezing point	ca. -72°C (ca. -98°F)
Initial boiling point and boiling range	ca. 36°C (ca. 97°F)
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	25%
Lower flammability or explosive limits	16%
Vapor pressure	No data available
Vapor density	No data available
Relative density	~0.9
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
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 read 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

Carcinogencity
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

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Bielschowsky, Lester King Modified Stain Kit, Sol'n C: Developer**
Part Number: 9154
CAS-No.: Not applicable
SDS Number: 2720

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 4
Acute toxicity (oral), Category 3
Acute toxicity (dermal), Category 3
Acute toxicity (inhalation), Category 1
Skin corrosion, Category 1
Serious eye damage, Category 1
Skin sensitisation, Category 1
Respiratory sensitization, Category 1
Carcinogenicity, Category 1A
Specific Target Organ Toxicity – Single exposure, Category 1
Specific Target Organ Toxicity – Repeated exposure, Category 1
Reproductive toxicity, Category 1B

2.2 GHS Label elements
Signal Word DANGER

Pictogram

Hazard Statement(s):
· Combustible liquid
· Toxic if swallowed
· Toxic in contact with skin
· Fatal if inhaled
· Causes severe skin burns and eye damage
· May cause an allergic skin reaction
· Suspected of causing cancer
· Causes damage to organs
· Harmful to aquatic life

Precautionary Statement(s):
Prevention:
· Obtain special instructions before use
· Do not handle until all safety precautions have been read and understood
· Keep away from heat/sparks/open flames/hot surfaces – No smoking
· Do not breathe dust/fume/gas/mist/vapours/spray
· Avoid breathing dust/fume/gas/mist/vapours/spray
· In case of inadequate ventilation wear respiratory 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
· Contaminated work clothing should not be allowed out of the workplace
· Wear protective gloves/protective clothing/eye protection/face protection

Response:

· IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
· IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
· Specific treatment: see first aid measures in section 4
· IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
· IF ON SKIN: Gently wash with plenty of soap and water
· If skin irritation or a rash occurs: Get medical advice/attention
· IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
· IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
· 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
· Wash contaminated clothing before reuse
· In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
· IF exposed or concerned: Get medical advice/attention
· IF exposed: Call a POISON CENTER or doctor/physician
· Get medical advice/attention if you feel unwell

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

3.2 Mixture

Hazardous Components

Component		Concentration
Name	Formaldehyde	
CAS-No.	50-00-0	5-7%
Name	Methyl Alcohol	
CAS-No.	67-56-1	Trace
Name	Citric Acid	
CAS-No.	72-92-9	4%
Name	Nitric Acid	
CAS-No.	7761-88-8	<<1%

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. Remove/Take off immediately all contaminated clothing. 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:	2	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. 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). Ensure proper ventilation. Contain spill. Prevent further leakage if possible and safe to do so. 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
Keep away from heat/sparks/open flames/hot surfaces – No smoking. Do not breathe dust/fume/gas/mist/vapours/spray.Wear protective gloves/protective clothing/eye protection/face protection.

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

Component	CAS-No.	Regulatory	Value	Parameters
Formaldehyde	50-00-0	OSHA PEL	TWA	0.75 ppm
		OSHA PEL	STEL	2 ppm
		ACGIH TLV	C	0.3 ppm (0.37 mg/m^3)
		NIOSH REL	TWA	0.016 ppm
		NIOSH REL	C	0.1 ppm 15-minute

Component	CAS-No.	Regulatory	Value	Parameters
Methyl Alcohol	67-56-1	OSHA PEL	TWA	200 ppm (260 mg/m^3)
		ACGIH TLV	TWA	200 ppm (262 mg/m^3)
		ACGIH TLV	STEL	50 ppm (328 mg/m^3)
		NIOSH REL	TWA	200 ppm (260 mg/m^3)
		NIOSH REL	STEL	250 ppm (325 mg/m^3)

Component	CAS-No.	Regulatory	Value	Parameters
Nitric Acid	7697-37-2	OSHA PEL	TWA	2 ppm (5 mg/m^3)
		ACGIH TLV	TWA	2 ppm (5.2 mg/m^3)
		ACGIH TLV	STEL	4 ppm (10 mg/m^3)
		NIOSH REL	TWA	2 ppm (5 mg/m^3)
		NIOSH REL	STEL	4 ppm (10 mg/m^3)

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).
Formaldehyde: Where the potential exists for exposure over 0.016 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.
Formaldehyde: Exposure to 20 ppm is immediately dangerous to life and health. If the possibility of exposure above 20 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 unknown concentrations, or escape, wear a self-contained positive-pressure breathing apparatus.

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Colorless liquid
Odor	Tart odor
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
Heat, sparks, open flame, and ignition sources.

10.5 Incompatible materials

Formaldehyde reacts violently with nitrogen oxides; oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine); mixtures of perchloric acid and aniline; nitromethane; magnesium carbonate; and hydrogen peroxide. Formaldehyde reacts with phenol and hydrogen chloride to form toxic bis(chloromethyl) ether. Formaldehyde is not compatible with strong acids (such as hydrochloric, sulfuric and nitric); strong bases (such as sodium hydroxide and potassium hydroxide); iodine; iron; silver; isocyanates; amines; anhydrides; and liquid oxygen.

10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
Difficulty in breathing was experienced at 10 to 20 ppm. Upper airway irritation and increased nasal airway resistance were reported at 0.1 to 25 ppm and lower airway and chronic pulmonary obstruction at 5 to 30 ppm. Inhaling formaldehyde can irritate the lungs. Higher exposures may cause a build-up of fluid in the lungs (pulmonary edema), a medical emergency.

Oral exposure
Most subjects experience irritation of the eyes, nose, and throat at 1 to 3 ppm; many subjects cannot tolerate prolonged exposures to 4 to 5 ppm

Dermal exposure
No data available

Skin corrosion/irritation
Formaldehyde is corrosive and contact can severely irritate and burn the skin.

Serious eye damage/irritation
10 to 20 ppm produces almost immediate eye irritation. Most subjects experience irritation of the eyes, nose, and throat at 1 to 3 ppm; many subjects cannot tolerate prolonged exposures to 4 to 5 ppm.

Respiratory or skin sensitization
It has been estimated that exposure for 5 to 10 minutes to 50 to 100 ppm might cause serious injury to the lower respiratory passages. Formaldehyde may cause a skin allergy and an asthma-like allergy. Formaldehyde may cause an asthma-like allergy. Future exposure can cause asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness.

Germ Cell mutagenicity
No data available

Reproductive toxicity
There is limited evidence that Formaldehyde may damage the developing fetus and affect female fertility.

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
Formaldehyde:
LD50 rat oral 100 mg/kg
LD50 rat dermal 270 mg/kg
LC50 rat inhalation 0.48 mg/l/4 hours

Carcinogencity
IARC: Formaldehyde: Group 1, carcinogenic to humans
NTP: Formaldehyde: Known human carcinogen
OSHA: Formaldehyde: Specifically regulated carcinogen

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

Version 1.0

SAFETY DATA SHEET (SDS)

Revision Date: 04/18/2017

Version 1.1

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Bielschowsky, Lester King Modified Stain Kit, Sol'n D: Sodium Thiosulfate 5%, Aqueous**

Part Number: 9154
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

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

3.1 Substances
Hazardous Components

Component		Concentration
Name	Sodium Thiosulfate	
CAS-No.	10102-17-7	5%

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

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.

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

Physical state	Translucent, colorless 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)
Flash point	No data available
Evaporation rate	Evap. rate of water = 1; 1
Flammability (solid, gas)	Not flammable
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	No data available
Relative density	For water in air = 1; 1
Solubility(ies)	Soluble
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 acids, metal nitrates, iodine, lead, and mercury.

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

Carcinogencity
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