

Part Number: 9154

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

2.2 GHS Label elements

Signal Word DANGER

Pictogram



Hazard Statement(s):

- May intensify fire; oxidizer
- May be corrosive to metals
- Toxic if swallowed
- Toxic in contact with skin
- Causes severe skin burns and eye damage
- May cause an allergic skin reaction
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Suspected of causing genetic defects
- May cause cancer
- Causes damage to organs

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.
- Do not breathe dust/fume/gas/mist/vapours/spray.
Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.

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- 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 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 or a rash 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 SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- 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.
- Keep container tightly closed.
- 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

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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.

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Part Number: 9154

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

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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
- Causes severe skin burns and eye damage

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 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.

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- 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 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)

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.

Part Number: 9154

NFPA Rating

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

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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

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

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

Part Number: 9154

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

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

Part Number: 9154

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

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Part Number: 9154

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
- 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:

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- 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	Fire	Reactivity
hazard: 3	hazard: 1	hazard: 0

6. ACCIDENTAL RELEASE MEASURES

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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

Part Number: 9154

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

Part Number: 9154

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

Part Number: 9154

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

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Part Number: 9154

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
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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
 Acute toxicity (inhalation), Category 4
 Skin corrosion, Category 1
 Serious eye damage, Category 1
 Skin sensitisation, Category 1
 Respiratory sensitization, Category 1
 Germ cell mutagenicity, Category 2
 Carcinogenicity, Category 1A
 Specific Target Organ Toxicity – Single exposure, Category 1

2.2 GHS Label elements

Signal Word DANGER

Pictogram



Hazard Statement(s):

- Harmful if swallowed
- Harmful if inhaled
- Causes severe skin burns and eye damage
- May cause an allergic skin reaction
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Suspected of causing genetic defects
- May cause cancer
- Causes damage to organs

Precautionary Statement(s):

Prevention:

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe 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:

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- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- 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 or a rash 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Specific treatment is urgent: see first aid measures in section 4.
- Immediately call a POISON CENTER or doctor/physician.

Storage:

- Keep container tightly closed.
- 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.	Not applicable	5-7%
Name	Methyl Alcohol	
CAS-No.	67-56-1	Trace
Name	Citric Acid	
CAS-No.	77-92-9	4%
Name	Nitric Acid	
CAS-No.	7697-37-2	<<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. 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

Part Number: 9154

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	Fire	Reactivity
hazard: 3	hazard: 2	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

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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

Part Number: 9154

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

Formaldehyde: 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.

Part Number: 9154

Oral exposure

Acute oral exposure to formaldehyde can result in serious systemic symptoms or death.

Dermal exposure

No data available

Skin corrosion/irritation

Formaldehyde is corrosive and contact can severely irritate and burn the skin.

Serious eye damage/irritation

Formaldehyde: 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

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

Formaldehyde:

LD50 rat oral 100 mg/kg

LD50 rat dermal 270 mg/kg

LC50 rat inhalation 0.48 mg/l/4 hours

Carcinogenicity

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

Part Number: 9154

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

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Part Number: 9154

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Part Number: 9154

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

Part Number: 9154

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	Fire	Reactivity
hazard: 0	hazard: 0	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

Part Number: 9154

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

Part Number: 9154

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

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

Part Number: 9154

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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