

Part Number: 9110

## 1. PRODUCT AND COMPANY IDENTIFICATION

**1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit

**Part Number:** 9110

**CAS-No.:** Not applicable

**SDS Number:** 6080

**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](http://www.newcomersupply.com)

**Email:** [newly@newcomersupply.com](mailto: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 3

Skin corrosion, Category 1

Serious eye damage, Category 1

Acute toxicity (oral), Category 4

Corrosive to metals, Category 1

Specific Target Organ Toxicity – Respiratory System - Single exposure, Category 3

### 2.2 GHS Label elements

**Signal Word** DANGER

**Pictogram**



**Hazard Statement(s):**

- Flammable liquid and vapour
- Causes severe skin burns and eye damage
- Harmful if swallowed
- May be corrosive to metals
- May cause respiratory irritation
- May cause drowsiness or dizziness

**Precautionary Statement(s):**

**Prevention:**

Keep only in original container.

Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Use explosion-proof fume hood/electrical/ventilating/light equipment.

Do not breathe dust/fume/gas/mist/vapours/spray.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof fume hood/electrical/ventilating/light equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

**Response:**

Absorb spillage to prevent material damage.

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In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

Specific treatment: see first aid measures in section 4.

Immediately call a POISON CENTER or doctor/physician.

**Storage:**

Store locked up.

Store in a well ventilated place. Keep cool.

Keep container tightly closed.

**Disposal:**

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

**2.3 Description of any hazards not otherwise classified** None

**2.4 >1% of mixture with unknown acute toxicity** None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

See component SDS

**4. FIRST-AID MEASURES**

See component SDS

**5. FIRE-FIGHTING MEASURES**

See component SDS

**6. ACCIDENTAL RELEASE MEASURES**

See component SDS

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

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

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

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

**8. EXPOSURE CONTROLS/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

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**12. ECOLOGICAL INFORMATION**

See component SDS

**13. DISPOSAL CONSIDERATIONS**

See component SDS

**14. TRANSPORT INFORMATION****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: 9110

## 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit, Sol'n A, Acetic Acid 12 %, Aqueous  
**Part Number:** 9110  
**CAS-No.:** Not applicable  
**SDS Number:** 2040
- 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](http://www.newcomersupply.com)  
**Email:** [newly@newcomersupply.com](mailto: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)  
 Skin corrosion, Category 1  
 Serious eye damage, Category 1

**2.2 GHS Label elements**

**Signal Word** DANGER

**Pictogram**



**Hazard Statement(s):**

- Causes severe skin burns and eye damage

**Precautionary Statement(s):**

**Prevention:**

- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.

**Response:**

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

**Storage:**

- 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**

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**Hazardous Components**

Component		Concentration
Name	Acetic Acid Glacial	
CAS-No.	64-19-7	12%

**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:	1	Fire hazard:	0	Reactivity hazard:	0
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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.

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

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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
Acetic Acid	64-19-7	OSHA PEL	TWA	10 ppm (25 mg/m <sup>3</sup> )
		ACGIH TLV	TWA	10 ppm (25 mg/m <sup>3</sup> )
		ACGIH TLV	STEL	15 ppm (37 mg/m <sup>3</sup> )
		NIOSH REL	TWA	10 ppm (25 mg/m <sup>3</sup> )
		NIOSH REL	STEL	15 ppm (37 mg/m <sup>3</sup> )

**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).

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

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

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

**Other Information**

None

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

Physical state	Colorless liquid
Odor	Vinegar odor
Odor threshold	No data available
pH	2.1 at 18°C (64°F)
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)	Infinitely soluble with water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

**10. STABILITY AND REACTIVITY**
**10.1 Reactivity**

No data available

**10.2 Chemical stability**

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

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**



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No data available

**10.5 Incompatible materials**

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

**10.6 Hazardous decomposition products**

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

**11. TOXICOLOGICAL INFORMATION**
**11.1 Information on toxicological effects**
**Inhalation exposure**

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

**Oral exposure**

No data available

**Dermal exposure**

No data available

**Skin corrosion/irritation**

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

**Serious eye damage/irritation**

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

**Respiratory or skin sensitization**

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

**Germ cell mutagenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Acute toxicity**

Glacial Acetic Acid:

LD50 rat oral 3310 mg/kg

LD50 rabbit skin 1060uL/kg

LD50 mouse intravenous 525mg/kg

**Carcinogenicity**

IARC: None of the components are listed

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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)**

<b>UN-Number</b>	No data available
<b>Proper shipping name</b>	No data available
<b>Hazard class</b>	No data available
<b>Packing group</b>	No data available
<b>Environmental hazards</b>	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: 9110

## 1. PRODUCT AND COMPANY IDENTIFICATION

**1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit, Sol'n B: Colloidal Iron Stock

**Part Number:** 9110

**CAS-No.:** Not applicable

**SDS Number:** 2540

**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](http://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

### 2.2 GHS Label elements

**Signal Word** WARNING

**Pictogram**



**Hazard Statement(s):**

- Harmful if swallowed.

**Precautionary Statement(s):**

**Prevention:**

- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.

**Response:**

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

**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	Ferric Chloride	
CAS-No.	7705-08-0	0.5%

## 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.

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**Skin Contact**

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

**Eye Contact**

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

**Ingestion (swallowed)**

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

**4.2 Most important symptoms and or effects, acute and delayed**

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

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**5. FIRE-FIGHTING MEASURES**
**5.1 Suitable extinguishing media**

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

**5.2 Specific hazards arising from the substance or mixture**

No data available

**5.3 Protective equipment and precautions for fire-fighters**

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

**NFPA Rating**

Health	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 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**

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Components with limit values that require monitoring at the workplace

Component	CAS-No.	Regulatory	Value	Parameters
Ferric Chloride	1310-73-2	NIOSH REL	TWA	1 mg/m <sup>3</sup>
		ACGIH TLV	TWA	1 mg/m <sup>3</sup>

**8.2 Exposure Controls**
**Appropriate engineering controls**

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

**8.3 Personal Protective Equipment**
**Eye/Face protection**

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

**Skin Protection**

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

**Body Protection**

No data available

**Respiratory Protection**

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

Where the potential exists for exposure over 2 mg/m<sup>3</sup>: use a NIOSH approved negative pressure, air-purifying, particulate filter respirator with an N, R or P100 filter. More protection is provided by a full facepiece respirator than by a half-mask respirator, and even greater protection is provided by a powered-air purifying respirator.

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

Exposure to 10 mg/m<sup>3</sup> is immediately dangerous to life and health. If the possibility of exposure above 10 mg/m<sup>3</sup> exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder.

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

**Other Information**

None

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

Physical state	Clear, straw colored solution
Odor	Odorless
Odor threshold	No data available
pH	No data available
Melting point/freezing point	No data available

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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

No data available

### 10.5 Incompatible materials

Strong oxidizing agents

### 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

Part Number: 9110

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Acute toxicity**

Ferric Chloride:

LD50 rat oral 316 mg/kg

**Carcinogenicity**

IARC: None of the components are listed

NTP: None of the components are listed

OSHA: None of the components are listed

**Additional information**

RTECS: No data available

**12. ECOLOGICAL INFORMATION**
**12.1 Ecotoxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Other adverse effects**

No data available

**13. DISPOSAL CONSIDERATIONS**
**13.1 Waste disposal methods**
**Contents**

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

**Contaminated packaging**

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

**14. TRANSPORT INFORMATION**
**14.1 DOT (US)**
**UN-Number** No data available

**Proper shipping name** No data available

**Hazard class** No data available

**Packing group** No data available

**Environmental hazards** No data available

**15. REGULATORY INFORMATION**
**15.1** No data available

Part Number: 9110

**16. OTHER INFORMATION**

Preparation Information

Newcomer Supply Inc.

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Part Number: 9110

## 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit , Sol'n C, Acetic Acid 40%, Aqueous  
**Part Number:** 9110  
**CAS-No.:** Not applicable  
**SDS Number:** 2050
- 1.2 Recommended Use:** Laboratory Chemicals
- 1.3 Company:** Newcomer Supply  
 2505 Parview Road  
 Middleton, WI 53562 USA
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**Fax:** 1-608-831-0866  
**Website:** [www.newcomersupply.com](http://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)  
 Flammable liquid, Category 3  
 Skin corrosion, Category 1A  
 Serious eye damage, Category 1

**2.2 GHS Label elements**

**Signal Word** DANGER

**Pictogram**



**Hazard Statement(s):**

- Flammable liquid and vapour
- Causes severe skin burns and eye damage

**Precautionary Statement(s):**

**Prevention:**

- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Use explosion-proof fume hood/electrical/ventilating/light equipment.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.

**Response:**

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

**Storage:**

Part Number: 9110

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

**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	Acetic Acid Glacial	
CAS-No.	64-19-7	40%

**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: 2	hazard: 0

**6. ACCIDENTAL RELEASE MEASURES**

Part Number: 9110

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

Apply personal protective equipment (see Section 8.2). 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. In case of large spill, remove personnel to a safe area. 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 8.2). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations. Eliminate sources of ignition.

**7. HANDLING AND STORAGE**
**7.1 Precautions for safe handling**

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
Acetic Acid	64-19-7	OSHA PEL	TWA	10 ppm (25 mg/m <sup>3</sup> )
		ACGIH TLV	TWA	10 ppm (25 mg/m <sup>3</sup> )
		ACGIH TLV	STEL	15 ppm (37 mg/m <sup>3</sup> )
		NIOSH REL	TWA	10 ppm (25 mg/m <sup>3</sup> )
		NIOSH REL	STEL	15 ppm (37 mg/m <sup>3</sup> )

**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: 9110

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

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

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

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

**Other Information**

None

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

Physical state	Colorless liquid
Odor	Pungent vinegar 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)	Infinitely soluble with water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

**10. STABILITY AND REACTIVITY**
**10.1 Reactivity**

No data available

**10.2 Chemical stability**

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

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Part Number: 9110

Heat, sparks, open flame, and ignition sources.

**10.5 Incompatible materials**

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

**10.6 Hazardous decomposition products**

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

**11. TOXICOLOGICAL INFORMATION**
**11.1 Information on toxicological effects**
**Inhalation exposure**

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

**Oral exposure**

No data available

**Dermal exposure**

No data available

**Skin corrosion/irritation**

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

**Serious eye damage/irritation**

Human data: It has been reported that 50 ppm or more is intolerable to most persons due to intense lacrimation and irritation of the eyes, nose, and throat.

**Respiratory or skin sensitization**

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

**Germ cell mutagenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Acute toxicity**

Glacial Acetic Acid:

LD50 rat oral 3310 mg/kg

LD50 rabbit skin 1060uL/kg

LD50 mouse intravenous 525mg/kg

LC50 mouse inhalation 5620ppm/1H

**Carcinogenicity**

Part Number: 9110

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)**

<b>UN-Number</b>	2790
<b>Proper shipping name</b>	Acetic Acid Solution
<b>Hazard class</b>	8
<b>Packing group</b>	III
<b>Environmental hazards</b>	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](http://www.newcomersupply.com)  
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Part Number: 9110

## 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit, Sol'n D: Potassium Ferrocyanide 2%, Aqueous
- Part Number:** 9110
- CAS-No.:** Not applicable
- SDS Number:** 4060
- 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](http://www.newcomersupply.com)
- Email:** [newly@newcomersupply.com](mailto:newly@newcomersupply.com)

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

## 2. HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture**  
GHS Classification, (in accordance with 29 CFR1910.1200)  
None
- 2.2 GHS Label elements**
- Signal Word** NONE
- Pictogram**
- Hazard Statement(s):**  
· None
- Precautionary Statement(s):**  
· None
- 2.3 Description of any hazards not otherwise classified** None
- 2.4 >1% of mixture with unknown acute toxicity** None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.2 Mixture**  
**Hazardous Components**

Component		Concentration
Name	Potassium Ferrocyanide	
CAS-No.	14459-95-1	2%

## 4. FIRST-AID MEASURES

- 4.1 Description of necessary measures**

**Inhalation (breathing)**

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

**Skin Contact**

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: 9110

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

**Ingestion (swallowed)**

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

**4.2 Most important symptoms and or effects, acute and delayed**

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

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**5. FIRE-FIGHTING MEASURES**
**5.1 Suitable extinguishing media**

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

**5.2 Specific hazards arising from the substance or mixture**

No data available

**5.3 Protective equipment and precautions for fire-fighters**

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

**NFPA Rating**

Health	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 vapors. Avoid skin contact. Avoid eye contact. Wash hands after use.

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

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

**7. HANDLING AND STORAGE**
**7.1 Precautions for safe handling**

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

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

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 Control Parameters**

Components with limit values that require monitoring at the workplace

Component	CAS-No.	Regulatory	Value	Parameters
Potassium Ferrocyanide	1310-73-2	OSHA PEL	TWA	5 mg/m <sup>3</sup>
		ACGIH TLV	TWA	1 mg/m <sup>3</sup>



Part Number: 9110

**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	Yellow liquid; no precipitate
Odor	Mild vinegar 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**

Part Number: 9110

Avoid contact with heat, flame, or sparks.

**10.5 Incompatible materials**

Strong acids, strong oxidizing agents, and ammonia. Exposure to acids and/or heat liberates toxic cyanide vapors.

**10.6 Hazardous decomposition products**

Carbon dioxide, carbon monoxide, nitrogen oxides, hydrogen cyanide gas, and potassium 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**

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**

Potassium Ferrocyanide:

LD50 rat oral 6400 mg/kg

**Carcinogenicity**

IARC: None of the components are listed

IARC: None of the components are listed

IARC: None of the components are listed

**Additional information**

RTECS: No data available

**12. ECOLOGICAL INFORMATION**
**12.1 Ecotoxicity**

No data available

**12.2 Persistence and degradability**

Part Number: 9110

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)**

<b>UN-Number</b>	No data available
<b>Proper shipping name</b>	No data available
<b>Hazard class</b>	No data available
<b>Packing group</b>	No data available
<b>Environmental hazards</b>	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](http://www.newcomersupply.com)

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Part Number: 9110

**1. PRODUCT AND COMPANY IDENTIFICATION**

- 1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit, Sol'n E: Hydrochloric Acid 2%, Aqueous
- Part Number:** 9110
- CAS-No.:** Not applicable
- SDS Number:** 3270
- 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](http://www.newcomersupply.com)
- Email:** [newly@newcomersupply.com](mailto: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

Specific Target Organ Toxicity – Respiratory System - Single exposure, Category 3

**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 cause respiratory irritation
- May cause drowsiness or dizziness

**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.
- Use only outdoors or in a well-ventilated area.

**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: 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.

Part Number: 9110

**Storage:**

- Store in a corrosive resistant container/container with a resistant inner liner.
- Store in a well ventilated place. 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	Hydrochloric Acid	
CAS-No.	7647-01-0	2%

**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: 0	hazard: 1

Part Number: 9110

**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
Hydrochloric Acid	7647-01-0	OSHA PEL	C	5 ppm (7 mg/m <sup>3</sup> )
		NIOSH REL	C	5 ppm (7 mg/m <sup>3</sup> )
		NIOSH REL	IDLH	50 ppm (75 mg/m <sup>3</sup> )
		ACGIH TLV	C	2 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: 9110

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

Where the potential exists for exposure over 2 ppm: use a NIOSH approved full facepiece respirator with an acid gas cartridge which is specifically approved for hydrochloric acid. Increased protection is obtained from full facepiece powered-air purifying respirators. Leave the area immediately if (1) while wearing a filter or cartridge respirator you can smell, taste, or otherwise detect hydrochloric acid, (2) while wearing particulate filters abnormal resistance to breathing is experienced, or (3) eye irritation occurs while wearing a full facepiece respirator. Check to make sure the respirator-to-face seal is still good. If it is, replace the filter or cartridge. If the seal is no longer good, you may need a new respirator.

Where the potential exists for exposure over 20 ppm: use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

Exposure to 50 ppm is immediately dangerous to life and health. If the possibility of exposure above 50 ppm exists: use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder. In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

**Other Information**

None

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

Physical state	Clear, colorless liquid
Odor	No data available
Odor threshold	No data available
pH	<2
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)	Non flammable liquid
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



Part Number: 9110

**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**

Store in tightly closed containers in a cool, well-ventilated area away from combustibles.

**10.5 Incompatible materials**

Hydrochloric acid may react explosively with alcohols; hydrogen cyanide; potassium permanganate; sodium; and tetraselenium tetranitride, and may ignite on contact with fluorine; hexalithium disilicide; metal acetylides and carbides. Hydrochloric acid reacts with oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine and bromine) to form toxic chlorine gas and reacts violently with strong bases (such as sodium hydroxide and potassium hydroxide). Hydrochloric acid will attack many metals (such as copper, brass, and zinc) to release flammable and explosive hydrogen gas. Hydrochloric acid will react with aldehydes and epoxides to cause violent polymerization (self-reaction). Hydrochloric acid corrodes steel.

**10.6 Hazardous decomposition products**

No data available

**11. TOXICOLOGICAL INFORMATION**
**11.1 Information on toxicological effects**
**Inhalation exposure**

Hydrochloric Acid: It has been reported that 50 to 100 ppm for 1 hour is barely tolerable and that 35 ppm causes irritation of the throat. Acute inhalation exposure may cause coughing, hoarseness, inflammation and ulceration of the respiratory tract, chest pain, and pulmonary edema in humans.

**Oral exposure**

Hydrochloric Acid: Acute oral exposure may cause corrosion of the mucous membranes, esophagus, and stomach, with nausea, vomiting, and diarrhea reported in humans.

**Dermal exposure**

Dermal contact with hydrochloric acid may produce severe burns, ulceration, and scarring.

**Skin corrosion/irritation**

Hydrochloric acid is corrosive to the eyes, skin, and mucous membranes.

**Serious eye damage/irritation**

Hydrochloric acid is corrosive to the eyes, skin, and mucous membranes.

**Respiratory or skin sensitization**

No data available

**Germ Cell mutagenicity**

No data available

**Reproductive toxicity**

In rats exposed to hydrochloric acid by inhalation, severe dyspnea, cyanosis, and altered estrus cycles have been reported in dams, and increased fetal mortality and decreased fetal weight have been reported in the offspring.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

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Chronic occupational exposure to hydrochloric acid has been reported to cause gastritis, chronic bronchitis, dermatitis, and photosensitization in workers. Prolonged exposure to low concentrations may also cause dental discoloration and erosion. Chronic inhalation exposure caused hyperplasia of the nasal mucosa, larynx, and trachea and lesions in the nasal cavity in rats.

**Aspiration hazard**

No data available

**Acute toxicity**

LCLo human 1300 ppm/30 minutes

LC50 rat 3124 ppm/1 hour

LC50 mouse 1108 ppm/1 hour

**Carcinogenicity**

IARC: Hydrochloric Acid: Group 3 Carcinogen - not classifiable as to its carcinogenicity to humans.

NTP: None of the components are listed

OSHA: None of the components are listed

**Additional information**

RTECS: No data available

**12. ECOLOGICAL INFORMATION**
**12.1 Ecotoxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Other adverse effects**

No data available

**13. DISPOSAL CONSIDERATIONS**
**13.1 Waste disposal methods**
**Contents**

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

**Contaminated packaging**

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

**14. TRANSPORT INFORMATION**
**14.1 DOT (US)**
**UN-Number**
**Proper shipping name**
**Hazard class**
**Packing group**
**Environmental hazards**

No data available

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**15. REGULATORY INFORMATION****15.1** No data available**16. OTHER INFORMATION**

Preparation Information

Newcomer Supply Inc.

800-383-7799

[www.newcomersupply.com](http://www.newcomersupply.com)

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Part Number: 9110

**1. PRODUCT AND COMPANY IDENTIFICATION**

- 1.1 Product Name:** Colloidal Iron, Müller-Mowry Stain Kit, Sol'n F: Nuclear Fast Red Stain, Kernechtrot  
**Part Number:** 9110  
**CAS-No.:** Not applicable  
**SDS Number:** 3630
- 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](http://www.newcomersupply.com)  
**Email:** [newly@newcomersupply.com](mailto: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)  
 Acute toxicity (oral), Category 4  
 Skin irritation, Category 2  
 Serious Eye Damage/Eye irritation, Category 2  
 Specific Target Organ Toxicity – Single exposure, Category 3
- 2.2 GHS Label elements**

**Signal Word** WARNING

**Pictogram**



**Hazard Statement(s):**

- Harmful if swallowed
- Causes skin irritation
- Causes serious eye irritation
- May cause respiratory irritation
- May cause drowsiness or dizziness

**Precautionary Statement(s):**

**Prevention:**

- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Use only outdoors or in a well-ventilated area.

**Response:**

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

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- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- Specific treatment: see first aid measures in section 4.
- Call a POISON CENTER or doctor/physician if you feel unwell.

**Storage:**

- Store locked up.
- Store in a well ventilated place. Keep container tightly closed.

**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	Nuclear Fast Red	
CAS-No.	6409-77-4	<1%
Name	Aluminum Sulfate	
CAS-No.	17927-65-0	4-5%
Name	Thymol	
CAS-No.	89-83-8	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. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin Contact**

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

**Eye Contact**

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

**Ingestion (swallowed)**

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

**4.2 Most important symptoms and or effects, acute and delayed**

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

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**5. FIRE-FIGHTING MEASURES**
**5.1 Suitable extinguishing media**

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

**5.2 Specific hazards arising from the substance or mixture**

No data available

**5.3 Protective equipment and precautions for fire-fighters**

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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: 1	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 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
Aluminum sulfate	7784-26-1	OSHA PEL	STEL	5 mg/m <sup>3</sup>
		OSHA PEL	TWA	15 mg/m <sup>3</sup>
		ACGIH TLV	TWA	1 mg/m <sup>3</sup>
		NIOSH REL	TWA	2 mg/m <sup>3</sup>

**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**

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No data available

**Respiratory Protection**

Respirators should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134). Where the potential exists for exposure over 2 mg/m<sup>3</sup>: use a NIOSH approved negative pressure, air-purifying, particulate filter respirator with a P95 filter. More protection is provided by a full facepiece respirator than by a half-mask respirator, and even greater protection is provided by a powered-air purifying respirator.

Where the potential exists for exposure over 20 mg/m<sup>3</sup>: 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	Opaque, pinkish-red liquid; no precipitate; will separate upon standing
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	No data available
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	Similar to water
Solubility(ies)	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**



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No data available

**10.5 Incompatible materials**

Strong oxidizers and bases

**10.6 Hazardous decomposition products**

Carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides and ammonia. May emit toxic and irritating fumes when heated.

**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 aluminum sulfate can severely irritate the skin.

**Serious eye damage/irritation**

Contact with aluminum sulfate 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**

Nuclear fast red can cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Acute toxicity**

Thymol:

LD50 rat oral 980 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

Part Number: 9110

**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**

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**14. TRANSPORT INFORMATION****14.1 DOT (US)**

<b>UN-Number</b>	No data available
<b>Proper shipping name</b>	No data available
<b>Hazard class</b>	No data available
<b>Packing group</b>	No data available
<b>Environmental hazards</b>	No data available

**15. REGULATORY INFORMATION****15.1** No data available**16. OTHER INFORMATION**

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