

# SAFETY DATA SHEET

Issuing date 2014-04-15

Revision Date 2014-04-15

Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product name:** RP X-OMAT LO Fixer and Replenisher, Part B

**Product code:** 8868804B

**Supplier** Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608

Emergency telephone number  
 CHEMTREC: +1-703-527-3887 (INTERNATIONAL)  
 1-800-424-9300 (NORTH AMERICA)

For other information contact: 800-328-2910

**Product Use:** Photographic chemical. Restricted to professional users.

## 2. HAZARDS IDENTIFICATION

### Classification

Corrosive to metals

Category 1

### Label elements

#### Emergency Overview

Signal word

Warning

hazard statements

May be corrosive to metals



**Appearance** Colorless Liquid

**Physical state** liquid

**Odor** Odorless

### Precautionary Statements - Prevention

Keep only in original container.

### Precautionary Statement - Response

Not applicable.

### Spill

Absorb spillage to prevent material damage.

**Precautionary Statement - Storage**

Store in corrosive resistant container with a resistant inliner.

**Hazards not otherwise classified (HNOC)**

- Not applicable

**Other Information**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name                  | CAS-No     | Weight % | Trade Secret |
|--------------------------------|------------|----------|--------------|
| Aluminum sulfate<br>10043-01-3 | 10043-01-3 | 10-15    | *            |

\*The exact percentages (concentrations) have been withheld as trade secrets.

**4. FIRST AID MEASURES****First Aid Measures**

|                       |   |
|-----------------------|---|
| <b>General advice</b> | If symptoms persist, call a physician.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention immediately if symptoms occur.                       |
| <b>Skin contact</b>   | Wash off immediately with plenty of water. Get medical attention immediately if symptoms occur.   |
| <b>Inhalation</b>     | Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.                           |
| <b>Ingestion</b>      | Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention. |

**Most important symptoms and effects, both acute and delayed**

**Main Symptoms** None known.

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

**Notes to physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**

No information available.

**Hazardous Combustion Products**

Sulfur oxides.

**Explosion Data**

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal precautions**                      Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. For personal protection see section 8.

**Environmental precautions**

**Environmental precautions**              Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

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

**Methods for Containment**                Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**                Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling**                Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Wash thoroughly after handling.

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

**Technical measures/Storage conditions**              Store in original container. Keep container tightly closed in a dry and well-ventilated place.

**Incompatible products**                None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**                    This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Measures**                Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**                Safety glasses with side-shields.

**Skin and body protection** Wear protective gloves/clothing. Skin contact should be prevented through use of suitable protective clothing, gloves, and footwear, selected with regard of use conditions and exposure potential.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL AND CHEMICAL PROPERTIES

|                |                  |                       |                          |
|----------------|------------------|-----------------------|--------------------------|
| Physical state | liquid           | <b>Odor</b>           | Odorless                 |
| Appearance     | Colorless Liquid | <b>Odor Threshold</b> | No information available |
| Color          | colorless        |                       |                          |

| <u>Property</u>                        | <u>Values</u>            | <u>Remarks/ • Method</u>  |
|--|--------------------------|---------------------------|
| ph                                     | 2.9                      | No information available  |
| Melting point/range:                   |                          | No information available  |
| Boiling point/boiling range            | > 100 °C                 | No information available  |
| Flash Point                            | > 93.800 °C              | No information available. |
| Evaporation rate                       |                          | No information available  |
| Flammability (solid, gas)              |                          |                           |
| upper flammability limit               |                          |                           |
| lower flammability limit               |                          |                           |
| Vapor pressure                         | 24 mbar @ 20 °C          | No information available  |
| Vapor density                          | 0.6                      | No information available  |
| Specific Gravity                       |                          | No information available  |
| Water Solubility                       | completely soluble       | No information available  |
| Solubility in other solvents           |                          | No information available  |
| Partition coefficient: n-octanol/water |                          | No information available  |
| Autoignition temperature               |                          | No information available  |
| Decomposition temperature              |                          | No information available  |
| Viscosity, kinematic                   |                          | No information available  |
| Viscosity, dynamic                     |                          | No information available  |
| Explosive properties                   | No information available |                           |
| Oxidizing Properties                   | No information available |                           |

#### Other information

|                    |                          |
|--------------------|--------------------------|
| Softening point    | No information available |
| Density VALUE      | No information available |
| Bulk Density VALUE | No information available |

## 10. STABILITY AND REACTIVITY

#### Reactivity

None under normal use conditions.

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

None under normal processing.

**Conditions to Avoid**

Heat, flames and sparks.

**Incompatible Materials**

None known.

**Hazardous Decomposition Products**

Sulfur oxides.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Expected to be a low hazard for recommended handling. May cause irritation of respiratory tract.              |
| <b>Eye contact</b>  | May cause slight irritation. Data for a 27% aqueous solution of aluminum sulfate shows slight eye irritation. |
| <b>Skin contact</b> | Substance may cause slight skin irritation.   |
| <b>Ingestion</b>    | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.                               |

**Toxicology data for the components**

| Chemical Name                  | Oral LD50            | Dermal LD50 | Inhalation LC50 |
|--------------------------------|----------------------|-------------|-----------------|
| Water<br>7732-18-5             | 90,000 mg/kg ( Rat ) | -           | -               |
| Aluminum sulfate<br>10043-01-3 | > 5000 mg/kg ( Rat ) | -           | -               |

| Chemical Name    | Other applicable information   |
|------------------|--|
| Aluminum sulfate | Severe eye irritation<br>No skin irritation<br>Cell transformation assay: negative<br>Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea |

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|                                 |   |
|---------------------------------|---|
| <b>Sensitization</b>            | May cause sensitization of susceptible persons. Cases of human skin sensitization have been reported. |
| <b>mutagenic effects</b>        | No information available.   |
| <b>Carcinogenicity</b>          | Contains no ingredients above reportable quantities listed as a carcinogen.                           |
| <b>Reproductive toxicity</b>    | No information available.   |
| <b>STOT - single exposure</b>   | No information available  |
| <b>STOT - repeated exposure</b> | No information available  |
| <b>Target Organ Effects</b>     | Skin, Eyes, Gastrointestinal tract (GI).  |
| <b>Aspiration Hazard</b>        | No information available.   |

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)

&gt;5000 mg/kg (ATE)

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

### Persistence and degradability

Expected to be readily biodegradable.

### Bioaccumulation:

No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste Disposal Methods**                      Dispose of in accordance with local regulations.

**Contaminated packaging**                      Dispose of in accordance with local regulations.

## 14. TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

### DOT

|                             |  |
|-----------------------------|--|
| <b>UN/ID No</b>             | Not Regulated per 49CFR 174.154(d)<br>UN3264 |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, inorganic, n.o.s.  |
| <b>Technical Name</b>       | Aluminum sulfate                             |
| <b>Hazard class</b>         | 8  |
| <b>Packing Group</b>        | III  |

### TDG

|                             |   |
|-----------------------------|---|
| <b>UN/ID No</b>             | UN3264                                      |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, inorganic, n.o.s. |
| <b>Technical Name</b>       | Aluminum sulfate                            |
| <b>Hazard class</b>         | 8   |
| <b>Packing Group</b>        | III   |

### ICAO/IATA

|                             |   |
|-----------------------------|---|
| <b>UN/ID No</b>             | UN3264                                      |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, inorganic, n.o.s. |
| <b>Technical Name</b>       | Aluminum sulfate                            |
| <b>Hazard class</b>         | 8   |
| <b>Packing Group</b>        | III   |
| <b>ERG Code</b>             | 8L  |
| <b>Special Provisions</b>   | A3  |

**IMDG/IMO**

|                             |   |
|-----------------------------|---|
| <b>UN/ID No</b>             | UN3264                                      |
| <b>Proper Shipping Name</b> | Corrosive liquid, acidic, inorganic, n.o.s. |
| <b>Technical Name</b>       | Aluminum sulfate                            |
| <b>Hazard class</b>         | 8   |
| <b>Packing Group</b>        | III   |
| <b>EmS No.</b>              | F-A, S-B                                    |
| <b>Special Provisions</b>   | 223, 274                                    |

This material is corrosive to steel or aluminum only and is packing group III solely because of its corrosive effect on aluminum or steel. This material, as per 49 CFR 173.154(d) is not a hazardous waste, hazardous substance, or a marine pollutant and is not subject any other requirements of the regulations when transported by motor vehicle or rail car and is packed in a package constructed of materials that will not react dangerously with the package contents. When transported via ground within the United States this material is not regulated.

For transportation information, go to: <http://ship.carestreamhealth.com>.

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

"Does not comply" indicates a component is either not on the public inventory or is subject to exemption requirements. If additional information is needed contact Carestream Health.

**International Inventories**

|                      |                 |
|----------------------|-----------------|
| <b>TSCA</b>          | Does not comply |
| <b>DSL/NDSL</b>      | Complies        |
| <b>EINECS/ELINCS</b> | Does not comply |
| <b>ENCS</b>          | Complies        |
| <b>IECSC</b>         | Complies        |
| <b>KECL</b>          | Complies        |
| <b>PICCS</b>         | Complies        |
| <b>AICS</b>          | Does not comply |
| <b>NZIoC</b>         | Complies        |

**Legend**

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | No |
| <b>Chronic Health Hazard</b>             | No |
| <b>Fire Hazard</b>                       | No |
| <b>Sudden Release of Pressure Hazard</b> | No |
| <b>Reactive Hazard</b>                   | No |

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

| Chemical Name    | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Aluminum sulfate | 5000 lb                     |                        |                           | X                          |

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**CERCLA**

| Chemical Name    | Hazardous Substances RQs | Extremely Hazardous Substances RQs | SARA Product RQ |
|------------------|--------------------------|------------------------------------|-----------------|
| Aluminum sulfate | 5000 lb                  |                                    |                 |

**TSCA**

This product does not contain any chemicals regulated under TSCA Section 4, Section 5(a), Section 8(a) or Section 8(d).

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical Name    | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------|---------------|------------|--------------|----------|--------------|
| Aluminum sulfate | X             | X          | X            |          |              |

**International Regulations****Mexico - Grade** Slight risk, Grade 1

| Chemical Name    | Carcinogen Status | Exposure Limits                 |
|------------------|-------------------|---------------------------------|
| Aluminum sulfate |                   | Mexico: TWA 2 mg/m <sup>3</sup> |

**16. OTHER INFORMATION****NFPA**

Health Hazard 1

Flammability 0

Instability 0

**HMIS**

Health Hazard 1

Flammability 0

Physical Hazard 0

**Revision Date**

2014-04-15

**Revision Note**

Update to OSHA GHS SDS format

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



# SAFETY DATA SHEET

Issuing date 2014-06-03

Revision Date 2014-06-03

Version 2

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product name:** RP X-OMAT LO Fixer and Replenisher, Part A

**Product code:** 8868804A

**Supplier** Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608

Emergency telephone number  
 CHEMTREC: +1-703-527-3887 (INTERNATIONAL)  
 1-800-424-9300 (NORTH AMERICA)

For other information contact: 800-328-2910


**Product Use:** Photographic chemical.

## 2. HAZARDS IDENTIFICATION

### Classification

|                                   |            |
|-----------------------------------|------------|
| Skin corrosion/irritation         | Category 2 |
| Serious eye damage/eye Irritation | Category 2 |

### Label elements

| Emergency Overview  |   |                    |
|---|---|--------------------|
| <b>Signal word</b>  | Warning   |                    |
| <b>hazard statements</b>  | Causes skin irritation<br>Causes serious eye irritation |                    |
|  |   |                    |
| <b>Appearance</b> Liquid, Colorless to yellow-green                                 | <b>Physical state</b> liquid                            | <b>Odor</b> Acetic |

### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

### Eyes

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.

**Skin**

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

**Hazards not otherwise classified (HNOC)**

- Not applicable

**Other Information**

1.01% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                     | CAS-No     | Weight % | Trade Secret |
|-----------------------------------|------------|----------|--------------|
| Water<br>7732-18-5                | 7732-18-5  | 40-60    | *            |
| Ammonium thiosulfate<br>7783-18-8 | 7783-18-8  | 35-45    | *            |
| Sodium thiosulfate<br>7772-98-7   | 7772-98-7  | 1-5      | *            |
| Ammonium sulfite<br>10196-04-0    | 10196-04-0 | 1-5      | *            |
| Acetic acid<br>64-19-7            | 64-19-7    | 1-3      | *            |
| Ammonium acetate<br>631-61-8      | 631-61-8   | 1-5      | *            |
| Sodium acetate<br>127-09-3        | 127-09-3   | 1-5      | *            |

\*The exact percentages (concentrations) have been withheld as trade secrets.

### 4. FIRST AID MEASURES

**First Aid Measures**

|                       |  |
|-----------------------|--|
| <b>General advice</b> | If symptoms persist, call a physician.   |
| <b>Eye contact</b>    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation persists.   |
| <b>Skin contact</b>   | Get medical attention if irritation develops and persists.   |
| <b>Inhalation</b>     | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.   |
| <b>Ingestion</b>      | If swallowed, call a poison control center or doctor immediately. Do not induce vomiting without medical advice. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. |

**Most important symptoms and effects, both acute and delayed**

**Main Symptoms** Irritation.

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

**Notes to physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Cool containers / tanks with water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

### Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

### Specific hazards arising from the chemical

Dried product residue can act as a reducing agent. Reacts violently with oxidizing materials. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing).

### Hazardous Combustion Products

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation. Avoid contact with the skin and the eyes. For personal protection see section 8.

### Environmental precautions

**Environmental precautions** Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions** Keep container tightly closed in a dry and well-ventilated place.

**Incompatible products** Bases. Acids. Strong oxidizing agents. Halogenated compounds. Sodium hypochlorite.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parametersExposure Guidelines

| Chemical Name          | ACGIH TLV                   | AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs | OSHA PEL                                 | Advisory OEL |
|------------------------|-----------------------------|---|--|--------------|
| Acetic acid<br>64-19-7 | STEL: 15 ppm<br>TWA: 10 ppm |   | TWA: 10 ppm<br>TWA: 25 mg/m <sup>3</sup> |              |

Appropriate engineering controls

**Engineering Measures** Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Tightly fitting safety goggles. Face-shield.

**Skin and body protection** Wear protective gloves/clothing. Skin contact should be prevented through use of suitable protective clothing, gloves, and footwear, selected with regard of use conditions and exposure potential.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

|   |                                   |                           |                          |
|---|-----------------------------------|---------------------------|--------------------------|
| <b>Physical state</b>                         | liquid                            | <b>Odor</b>               | Acetic                   |
| <b>Appearance</b>                             | Liquid, Colorless to yellow-green | <b>Odor Threshold</b>     | No information available |
| <b>Color</b>                                  | colorless - yellow, green         |                           |                          |
| <b>Property</b>                               | <b>Values</b>                     | <b>Remarks/ • Method</b>  |                          |
| ph  | 4.4                               | No information available  |                          |
| <b>Melting point/range:</b>                   |                                   | No information available  |                          |
| <b>Boiling point/boiling range</b>            | > 100 °C                          | No information available  |                          |
| <b>Flash Point</b>                            |                                   | No information available. |                          |
| <b>Evaporation rate</b>                       |                                   | No information available  |                          |
| <b>Flammability (solid, gas)</b>              |                                   |                           |                          |
| upper flammability limit                      |                                   |                           |                          |
| lower flammability limit                      |                                   |                           |                          |
| <b>Vapor pressure</b>                         | 24 mbar @ 20 °C                   | No information available  |                          |
| <b>Vapor density</b>                          | 0.6                               | No information available  |                          |
| <b>Specific Gravity</b>                       |                                   | No information available  |                          |
| <b>Water Solubility</b>                       | completely soluble                | No information available  |                          |
| <b>Solubility in other solvents</b>           |                                   | No information available  |                          |
| <b>Partition coefficient: n-octanol/water</b> |                                   | No information available  |                          |
| <b>Autoignition temperature</b>               |                                   | No information available  |                          |
| <b>Decomposition temperature</b>              |                                   | No information available  |                          |
| <b>Viscosity, kinematic</b>                   |                                   | No information available  |                          |
| <b>Viscosity, dynamic</b>                     |                                   | No information available  |                          |

**Explosive properties** No information available  
**Oxidizing Properties** No information available

**Other information**

**Softening point** No information available  
**Density VALUE** 1.343  
**Bulk Density VALUE** No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

None under normal use conditions.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Contact with strong acids liberates sulfur dioxide. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

**Conditions to Avoid**

Heat, flames and sparks.

**Incompatible Materials**

Bases. Acids. Strong oxidizing agents. Halogenated compounds. Sodium hypochlorite.

**Hazardous Decomposition Products**

Ammonia. Chloramine. Sulfur oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea. Contact with strong acids liberates sulfur dioxide. May cause irritation of respiratory tract. |
| <b>Eye contact</b>  | Expected to be an irritant based on components.   |
| <b>Skin contact</b> | Expected to be an irritant based on components.   |
| <b>Ingestion</b>    | May be harmful if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.   |

**Toxicology data for the components**

| Chemical Name                     | Oral LD50            | Dermal LD50           | Inhalation LC50   |
|-----------------------------------|----------------------|-----------------------|---|
| Ammonium thiosulfate<br>7783-18-8 | > 2000 mg/kg ( Rat ) | -                     | -   |
| Sodium thiosulfate<br>7772-98-7   | 5000 mg/kg ( Rat )   | -                     | -   |
| Ammonium sulfite<br>10196-04-0    | 2500 mg/kg (Rat)     | -                     | -   |
| Acetic acid<br>64-19-7            | 3310 mg/kg ( Rat )   | 1060 mg/kg ( Rabbit ) | 11.4 mg/L ( Rat ) 4 h<br>Inhalation LC50 Rat 11.4 mg/L 4 h<br>(Source: NLM_CIP) |



**Bioaccumulation:**

No information available.

| Chemical Name          | log Pow |
|------------------------|---------|
| Acetic acid<br>64-19-7 | -0.31   |

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste Disposal Methods** Dispose of in accordance with local regulations.

**Contaminated packaging** Do not re-use empty containers. Dispose of in accordance with local regulations.

| Chemical Name          | California Hazardous Waste Status |
|------------------------|-----------------------------------|
| Acetic acid<br>64-19-7 | Toxic<br>Corrosive<br>Ignitable   |

**14. TRANSPORT INFORMATION**

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

**DOT** Not regulated

**TDG** Not regulated

**ICAO/IATA** Not regulated

**IMDG/IMO** Not regulated

For transportation information, go to: <http://ship.carestream.com>

**15. REGULATORY INFORMATION****International Inventories**

|               |          |
|---------------|----------|
| TSCA          | Complies |
| DSL/NDSL      | Complies |
| EINECS/ELINCS | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| KECL          | Complies |
| PICCS         | Complies |
| AICS          | Complies |
| NZIoC         | Complies |

**Legend**

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory



**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical Name                    | SARA 313 - Threshold Values % |
|----------------------------------|-------------------------------|
| Ammonium thiosulfate - 7783-18-8 | 1.0                           |
| Ammonium sulfite - 10196-04-0    | 1.0                           |
| Ammonium acetate - 631-61-8      | 1.0                           |

#### SARA 311/312 Hazard Categories

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | No  |
| Fire Hazard                       | No  |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

#### Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

| Chemical Name    | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Ammonium sulfite | 5000 lb                     |                        |                           | X                          |
| Acetic acid      | 5000 lb                     |                        |                           | X                          |
| Ammonium acetate | 5000 lb                     |                        |                           | X                          |

#### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

| Chemical Name         | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-----------------------|-----------|---------------|-------------------------|-------------------------|
| Acetic acid - 64-19-7 |           | Group II      |                         |                         |

#### CERCLA

| Chemical Name    | Hazardous Substances RQs | Extremely Hazardous Substances RQs | SARA Product RQ |
|------------------|--------------------------|------------------------------------|-----------------|
| Ammonium sulfite | 5000 lb                  |                                    |                 |
| Acetic acid      | 5000 lb                  |                                    |                 |
| Ammonium acetate | 5000 lb                  |                                    |                 |

#### TSCA

This product does not contain any chemicals regulated under TSCA Section 4, Section 5(a), Section 8(a) or Section 8(d).

### U.S. State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
|               |               |            |              |          |              |



|                      |   |   |   |  |   |
|----------------------|---|---|---|--|---|
| Ammonium thiosulfate | X |   | X |  |   |
| Ammonium sulfite     | X | X | X |  |   |
| Acetic acid          | X | X | X |  | X |
| Ammonium acetate     | X | X | X |  |   |

**International Regulations****Mexico - Grade** Moderate risk, Grade 2

| Chemical Name | Carcinogen Status | Exposure Limits  |
|---------------|-------------------|--|
| Acetic acid   |                   | Mexico: TWA 10 ppm<br>Mexico: TWA 25 mg/m <sup>3</sup><br>Mexico: STEL 15 ppm<br>Mexico: STEL 37 mg/m <sup>3</sup> |

**16. OTHER INFORMATION****NFPA**

Health Hazard 2

Flammability 1

Instability -

**HMIS**

Health Hazard 2

Flammability 1

Physical Hazard 0

Revision Date

2014-06-03

Revision Note

(M)SDS sections updated

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet