

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identity:** Record Alum Hardening Converter

**Recommended use of the chemical and restrictions on use:** Hardener for photographic film and prints

**Supplier:** Sprint Systems of Photography, Inc.  
60 Kindergarten St.  
Woonsocket, RI 02895  
Telephone: +1 800 356-5073

**Emergency Phone:** For Chemical Emergency  
Call ChemTel (1-800-255-3924)

**SDS Date of Preparation:** 6/23/16

**2. HAZARDS IDENTIFICATION**

**Classification in accordance with US OSHA Hazcom 2012 and Canada WHMIS 2015:**  
Eye Damage Category 1

**GHS Label Elements:**



Danger!

**Statements of Hazard**

Causes serious eye damage.

**Precautionary Phrases**

Wear eye protection.  
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.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No.	Amount
Water	7732-18-5	Balance
Aluminum Sulfate	17927-65-0	15-25%
Acetic Acid	64-19-7	3-7%

The exact concentration is being withheld as a trade secret.

---

#### 4. FIRST AID MEASURES

---

**Eye:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do then continue rinsing. Get immediate medical attention.

**Skin:** Wash exposed area thoroughly with soap and water. Get medical attention if irritation develops and persists.

**Ingestion:** Do not induce vomiting unless directed to do so by a medical professional. Get medical attention if symptoms develop.

**Inhalation:** Remove victim to fresh air. Get medical attention if symptoms occur and persist.

**Most Important Symptoms:** May cause serious eye irritation, redness, tearing and corneal damage. Inhalation may cause slight respiratory irritation.

**Indication of immediate medical attention/special treatment:** Immediate medical attention is required for eye contact.

---

#### 5. FIRE FIGHTING MEASURES

---

**Suitable (and Unsuitable) Extinguishing Media:** Use water fog, carbon dioxide, foam or dry chemical to extinguish.

**Specific Hazards Arising From the Chemical:** Fire may produce carbon dioxide, carbon monoxide, sulfur oxide, and sulfuric acid.

**Special Protective Equipment and Precautions for Fire-Fighters:** Firefighters should wear NIOSH approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing for all fires involving chemicals.

---

#### 6. ACCIDENTAL RELEASE MEASURES

---

**Personal Precautions, Protective Equipment, and Emergency Procedures:** Avoid contact with eyes, skin and clothing. Avoid breathing vapor. Wear personal protective as described in Section 8.

**Methods and Materials for Containment and Cleaning Up:** Contain and collect using inert absorbent materials, such as sand and diatomaceous earth, and place in appropriate containers for disposal. Report releases as required by local, state and federal authorities.

---

#### 7. HANDLING AND STORAGE

---

**Precautions for Safe Handling:** Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapor. Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues and contaminants which can be hazardous. Follow all SDS precautions when handling empty containers.

**Conditions for Safe Storage, Including Any Incompatibilities:** Store in a cool, dry, well ventilated area away from heat and incompatible materials. Protect from physical damage.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines:**

Water	None Established
Aluminum Sulfate	None Established
Acetic Acid	10 ppm TWA (OSHA PEL) 10 ppm TWA, 15 ppm STEL (ACGIH TLV)

**Engineering Controls:** Use with adequate ventilation to maintain exposure levels below the exposure limits.

**Respiratory Protection:** In operations where exposures limits are exceeded, an approved respirator with organic vapor cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Skin Protection:** Wear neoprene or other impervious gloves if contact is possible. Contact your glove supplier for selection assistance.

**Eye Protection:** Chemical safety goggles should be worn where splashing is possible.

**Other:** None known.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor:** Clear liquid with slight sulfur dioxide odor.

<b>Physical State:</b> Liquid	<b>Odor Threshold:</b> 0.21 – 1 ppm (acetic acid)
<b>Vapor Density:</b> 0.6	<b>Initial Boiling Point/Range:</b> >100°C (212°F)
<b>Solubility In Water:</b> Soluble	<b>Vapor Pressure:</b> Not available
<b>Relative Density:</b> 1.158 @25°C (77°F)	<b>Evaporation Rate:</b> Not applicable (Buac=1)
<b>Melting/Freezing Point:</b> Not available	<b>pH:</b> 2.15
<b>VOC Content:</b> Not determined	<b>Octanol/Water Coefficient:</b> -0.17 (acetic acid)
<b>Solubility:</b> No data available	<b>Decomposition Temperature:</b> Not available
<b>Viscosity:</b> No data available	<b>Flammability (solid, gas):</b> Not applicable
<b>Flashpoint:</b> No data available	<b>Autoignition Temperature:</b> Not data available
<b>Flammable Limits:</b> LEL: Not applicable UEL: Not applicable	

**10. STABILITY AND REACTIVITY**

**Reactivity:** Not normally reactive.

**Chemical Stability:** Stable under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** None known.

**Conditions to Avoid:** Avoid extreme temperatures.

**Incompatible Materials:** Strong oxidizing and reducing agents, and strong bases.

**Hazardous Decomposition Products:** Decomposition may yield oxides of carbon and sulfur, and sulfuric acid.

## 11. TOXICOLOGICAL INFORMATION

### HEALTH HAZARDS:

**Eye:** May cause serious eye irritation, redness, tearing and corneal damage.

**Skin:** This product is not a skin irritant. The primary dermal irritation score was 0.54 following a 4-hour occluded dermal exposure in a modified FHSA/CPSC Design, 16 CFR 1500.

**Ingestion:** Swallowing small amounts are not expected to cause adverse effects. Swallowing large amounts may cause gastric upset with nausea, vomiting and diarrhea.

**Inhalation:** Inhalation of mist or vapor may cause slight irritation of the nose, throat and upper respiratory tract.

**Chronic:** None known.

**Sensitization:** This material is not known to cause sensitization.

**Carcinogenicity:** None of the components present are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

**Germ Cell Mutagenicity:** This product is not classified as a germ cell mutagen.

**Reproductive Toxicity:** This product is not classified as toxic to reproduction.

### Numerical Measures of Toxicity:

Product ATE: >2,000 mg/kg (oral), >2,000 mg/kg (dermal), >20 mg/L/4hr (inhalation)

Aluminum Sulfate: No data available.

Acetic Acid: Oral rat LD<sub>50</sub>: 3,310 mg/kg, Dermal rabbit LD<sub>50</sub>: 1,060 mg/kg, Inhalation rat LC<sub>50</sub>: 11.4 mg/L/4 hr

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

Acetic Acid: 96 hr LC<sub>50</sub> Pimephales promelas: 79 mg/L, 24 hr EC<sub>50</sub> Daphnia magna: 6,000 mg/L

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** Acetic acid: Not Bioaccumulative. Log BCF for constituents of orange oil: 1.502 – 2.597.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** No data available.

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local and national environmental regulations.

## 14. TRANSPORT INFORMATION

**DOT Hazardous Materials Description:**

**Proper Shipping Name:** Not Regulated

**UN Number:** Not applicable

**Hazard Class/Packing Group:** Not applicable

**Labels Required:** Not applicable

**IMDG Shipping Name:** Not Regulated

**UN Number:** None

**IMDG Hazard Class/Packing Group:** None

**IMDG Hazard Labels Required:** None

**IATA Shipping Name:** Not Regulated

**UN Number:** None

**IATA Hazard Class/Packing Group:** None

**IATA Hazard Labels Required:** None

---

## 15. REGULATORY INFORMATION

---

**CERCLA 103 Reportable Quantity:** This product has an RQ of 20,000 based on the RQ of Aluminum Sulfate of 5000 lbs. Furthermore, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**Hazard Category for Section 311/312:** Acute Health

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

**Section 302 Extremely Hazardous Substances (TPQ):** None

### STATE REGULATIONS:

**California Proposition 65:** This product does not contain substances known in the State of California to cause cancer and/or reproductive harm.

### INTERNATIONAL CHEMICAL INVENTORY STATUS:

**United States TSCA:** All the components are listed.

**Canada DSL:** All the components are listed.

---

## 16. OTHER INFORMATION

---

**NFPA Rating:** Health = 3    Flammability = 1    Instability = 0

**HMIS Rating:** Health = 3    Flammability = 1    Physical Hazard = 0

**Date of Current Revision:** 6/23/16

**Revision Summary:** New SDS

**Date of Previous Revision:** None

### NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Sprint Systems of Photography, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.