Section 1 Identification

PRODUCT IDENTITY: Sierra Stain™ BAS-13 Verdigris
PRODUCT USES: Perma-Cast® Concrete Stain

COMPANY IDENTITY: Butterfield Color, Inc.
COMPANY ADDRESS: 625 W Illinois Ave
COMPANY CITY: Aurora, IL 60506
COMPANY PHONE: 1-630-906-1980
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)

Section 2, Hazard(s) identification

Danger

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
H100s = General, H200s = Physical, H300s = Health, H400s = Environmental
H290  May be corrosive to metals. (CAT: 1)
H302 + H332 Harmful if swallowed or inhaled. (CAT: 4)
H314  Causes severe skin burns and eye damage. (CAT: 1)
H318  Causes serious eye damage. (CAT: 1)
H317  May cause an allergic skin reaction. (CAT: 1)

2.2 PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P234  Keep only in original container.
P260  Do not breathe mist / vapors / spray.
P264  Wash hands thoroughly after handling.
P271  Use only outdoors or in a well-ventilated area.
P280  Wear protective gloves / protective clothing / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Section 3, Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>EINECS#</th>
<th>WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper chloride</td>
<td>10125-13-0</td>
<td></td>
<td>10-15</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>231-595-7</td>
<td>10-15</td>
</tr>
<tr>
<td>Basic chromic chloride</td>
<td>50925-66-1</td>
<td>256-852-0</td>
<td>1-5</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td>Balance</td>
</tr>
</tbody>
</table>

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration. None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

Section 4, First Aid Measures

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & DELAYED:
See Section 11 for symptoms/effects, acute & delayed.

4.2 GENERAL ADVICE:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

4.3 EYE CONTACT:
If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. “Roll” eyes to expose more surface. Minimum flushing’s for 15 minutes. Seek immediate medical attention.

4.4 SKIN CONTACT:
If the product contaminates the skin, rinse affected area with copious amounts of water under a safety shower.

4.5 INHALATION:
After high vapor exposure, remove to fresh air.

4.6 SWALLOWING:
If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. Seek immediate medical attention.

Section 5, Fire Fighting Measures

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).
5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
Firefighters should wear NIOSH/MSHA SCBA and Full Protective clothing.

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
Cool tightly closed containers which will pressurize during a fire

Section 6, Accidental Release Measures

6.1 SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:
Isolate and contain spill. Avoid runoff into a sewer or waterway. Baking soda, soda ash and lime are the safest methods of neutralizing small spills. These should be sprinkled slowly around the edges of the spill and then toward the center to minimize any carbon dioxide foaming. Once the spill is neutralized, it should be covered with dry sand, soil or another inert material -- such as vermiculite -- and placed in a special container for chemical waste and disposed. Dispose of in accordance with local and state RCRA rules and regulation.

6.2 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT:
Wear overalls, chemical goggles, full-face shield, impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Use with adequate ventilation. If inhalation risk exists, don an air supplied respirator. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

6.3 ENVIRONMENTAL PRECAUTIONS:
Avoid runoff into municipal conveyances and waterways.

6.4 METHODS AND MATERIAL FOR CONTAINMENT & CLEAN-UP:
Dike with inert materials and dispose of accordingly to applicable RCRA rules.

Section 7, Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING:
Chemical Splash Goggles, impervious gloves and clothing and an approved respirator if working in a non-ventilated area.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Store in a cool, dry location away from alkalis, oxidizing agents, sodium hypochlorite, and cyanides.

Section 8, Exposure Controls / Personal Protective Equipment

8.1 EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>EINECS#</th>
<th>ACGIH Mg/m³</th>
<th>NIOSHA REL Mg/m³</th>
<th>OSHA PEL Mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper chloride</td>
<td>10125-13-0</td>
<td>-</td>
<td>1 TWA</td>
<td>1 TWA</td>
<td>1 TWA</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>231-595-7</td>
<td>(C) 2 ppm</td>
<td>(C) 5 ppm</td>
<td>(C) 7</td>
</tr>
<tr>
<td>Basic chromic chloride</td>
<td>50925-11-1</td>
<td>256-852-0</td>
<td>.5 TWA</td>
<td>.5 TWA</td>
<td>.5 TWA</td>
</tr>
</tbody>
</table>

8.2 APPROPRIATE ENGINEERING CONTROLS:
RESPIRATORY EXPOSURE CONTROLS
Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations.
EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS
Level A HAZMAT including an SCBA.

VENTILATION
LOCAL EXHAUST: If Necessary
SPECIAL: None
MECHANICAL (GENERAL): If Necessary
OTHER: None


8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION:
Splash goggles.

HAND PROTECTION:
Chemical impervious gloves.

BODY PROTECTION:
Use body protection appropriate for task. Coveralls are generally acceptable, depending on the task.

WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Remove clothing that becomes contaminated.

Section 9, Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE</td>
<td>Dark Liquid</td>
</tr>
<tr>
<td>ODOR</td>
<td>Sharp Pungent Odor</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH (Neutrality)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>MELTING POINT/FREEZING POINT</td>
<td>Not Available</td>
</tr>
<tr>
<td>BOILING RANGE (IBP,50%,Dry Point)</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>FLASH POINT (TEST METHOD)</td>
<td>Non Flammable</td>
</tr>
<tr>
<td>EVAPORATION RATE (n-Butyl Acetate=1)</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>FLAMMABILITY CLASSIFICATION</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>LOWER FLAMMABLE LIMIT IN AIR (% by vol)</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>UPPER FLAMMABLE LIMIT IN AIR (% by vol)</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>VAPOR PRESSURE (mm of Hg)@20° C</td>
<td>Not Available</td>
</tr>
<tr>
<td>VAPOR DENSITY (air=1)</td>
<td>Not Pertinent</td>
</tr>
<tr>
<td>GRAVITY @ 68/68° F / 20/20° C:</td>
<td></td>
</tr>
<tr>
<td>DENSITY</td>
<td>1.3</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY (Water=1):</td>
<td></td>
</tr>
<tr>
<td>WATER SOLUBILITY</td>
<td>Soluble</td>
</tr>
<tr>
<td>PARTITION COEFFICIENT (n-Octane/Water):</td>
<td>Not Available</td>
</tr>
<tr>
<td>DECOMPOSITION TEMPERATURE:</td>
<td>Not Available</td>
</tr>
<tr>
<td>VOCs (&gt;0.044 Lbs./Sq In):</td>
<td>Not Available</td>
</tr>
<tr>
<td>TOTAL VOC’S (TVOC)*:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NONEXEMPT VOC’S (CVOC)*:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>HAZARDOUS AIR POLLUTANTS (HAPS):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NONEXEMPT VOC PRESSURE (mm of Hg @ 20° C):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>VISCOSITY @ 20° C (ASTM D445):</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

* Using CARB (California Air Resources Board Rules).
Section 10, Stability & Reactivity

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
NL

10.3 INCOMPATIBLE MATERIALS:
Strong alkalis, alkali metals.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
May evolve highly toxic chlorine fumes.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

Section 11, Toxicological Information

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Absorption: Chemical will cause severe burning to skin.
Rapidly causes severe eye burns, which can permanently impair vision.

11.12 INHALATION:
Severely irritating to the respiratory system.

11.13 SWALLOWING:
Can cause burns of the mouth, throat, esophagus and stomach with consequent pain, uneasiness, nausea, vomiting, diarrhea, chills and intense thirst.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Asthmatic conditions aggravated.

11.3 CHRONIC HAZARDS
May cause contact dermatitis if repeatedly exposed to product mists.

11.4 MAMMALIAN TOXICITY INFORMATION
Copper chloride has an acute oral (rat) LD50 of 667 mg/kg.
Hydrochloric acid has a 4-hour inhalation LC50 (rat) value of 3124 ppm (4.7 mg/L).

Section 12, Ecological Information

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
NL.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:
Eco toxicological Information:
Fat Head Minnows: Lc50 > 1000 ppm; Daphnia Magna: LC50 > 1000 ppm
12.4 MOBILITY IN SOIL
Mobility of this material has not been determined.

12.5 DEGRADABILITY
Will not degrade.

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

Section 13, Disposal Considerations
Dispose of according to RCRA regulations.

Section 14, Transportation Information
MARINE POLLUTANT: Not Regulated
DOT/TDG SHIP NAME: UN 3264, Corrosive liquid, acidic, inorganic, N.O.S. (Contains Hydrochloric acid, solution), 8, III
DRUM LABEL: Corrosive

IATA / ICAO: UN 3264, Corrosive liquid, acidic, inorganic, N.O.S. (Contains Hydrochloric acid, solution), 8, III
IMO / IMDG: UN 3264, Corrosive liquid, acidic, inorganic, N.O.S. (Contains Hydrochloric acid, solution), 8, III

Section 15, Regulatory Information
15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute
All components of this product are on the TSCA list.
SARA Title III Section 313 Supplier Notification

15.2 SARA TITLE III INGREDIENTS
Acute

15.3 STATE REGULATIONS:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):
Not listed

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
Copper Chloride: D1B (Toxic Material causing immediate and serious toxic effects) (E (Corrosive)
Hydrochloric Acid: D1A (Very Toxic), E (Corrosive)

Section 16, Other Information

16.1 HAZARD RATINGS:
HMIS HEALTH: 3, FLAMMABILITY: 0, Reactivity: 0
16.2 EMPLOYEE TRAINING
   Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS REVISION DATE: 6/19/2015

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Prepared By: HS&E Compliance Resources