Section 1 Identification

PRODUCT IDENTITY: Sierra Stain™ BAS-15 Stygian
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 Harmful if swallowed. Oral (CAT: 4)
H332 Harmful if inhaled. (CAT: 4)
H314 Causes severe skin burns and eye damage. (CAT: 1)
H318 Causes severe eye damage. (CAT: 1)
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Respiratory sensitization (CAT: 1)
H317 May cause allergic skin reaction. Skin sensitization (CAT: 1)
H340 May cause genetic defects. Germ cell mutagenicity (CAT: 1B)
H350i May cause cancer by inhalation. Carcinogenicity (CAT: 1B)
H360 May damage fertility or the unborn child. Reproductive toxicity (Cat 1B)
H372 Causes damage to organs through prolonged or repeated exposure. Specific target organ toxicity repeated exposure (Cat 1)

2.2 PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P201 Obtain special instructions before use.
### Section 3, Composition / Information on Ingredients

**Hazardous ingredients**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium trichloride</td>
<td>10025-73-7</td>
<td>&gt;=5 - &lt;10%</td>
</tr>
<tr>
<td>Sodium dichromate, dihydrate</td>
<td>7789-12-0</td>
<td>&gt;=5 - &lt;10%</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### Section 4, First Aid Measures

4.1 IF INHALED:
Move person to fresh air and keep comfortable for breathing. Consult a physician after significant exposure.

4.2 IN CASE OF SKIN CONTACT:
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
4.3 IN CASE OF EYE CONTACT:
Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Keep eye wide open while rinsing.

4.4 IF SWALLOWED:
Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

4.5 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
Health injuries may be delayed.
corrosive effects
sensitizing effects
carcinogenic effects
toxic effects for reproduction
Gastrointestinal discomfort
Asthmatic appearance
Respiratory disorder
Allergic reactions
Headache
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.

Harmful if swallowed or if inhaled.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause genetic defects.
May cause cancer by inhalation.
May damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Causes severe burns.

4.6 PROTECTION OF FIRST-AIDERS:
Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.

4.7 NOTES TO PHYSICIAN:
Treat symptomatically.

Section 5, Fire Fighting Measures

5.1 SUITABLE EXTINGUISHING MEDIA:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 SPECIFIC EXTINGUISHING METHODS:
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
5.3 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
In the event of fire, wear self-contained breathing apparatus.

Section 6, Accidental Release Measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
Use personal protective equipment. Deny access to unprotected persons.

6.2 ENVIRONMENTAL PRECAUTIONS:
Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.

6.3 METHODS AND MATERIAL FOR CONTAINMENT & CLEANING UP:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

Section 7, Handling and Storage

7.1 ADVICE ON SAFE HANDLING:
Avoid formation of aerosol. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Pregnant women or women of child-bearing age should not be exposed to this product. Follow standard hygiene measures when handling chemical products.

7.2 CONDITIONS FOR SAFE STORAGE:
Prevent unauthorized access. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Store in accordance with local regulations.

7.3 MATERIALS TO AVOID:
No data available

Section 8, Exposure Controls / Personal Protective Equipment

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Basis **</th>
<th>Value</th>
<th>Exposure limit(s)* / Form of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium trichloride</td>
<td>10025-73-7</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>Sodium dichromate, dehydrate</td>
<td>7789-12-0</td>
<td>ACGIH</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**Basis
ACGIH. Threshold Limit Values (TLV)
OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)
OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
OSHA Z3. Table Z-3, Mineral Dust
8.2 ENGINEERING MEASURES:
Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

8.3 PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION:
Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

HAND PROTECTION:
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

EYE PROTECTION:
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

SKIN AND BODY PROTECTION:
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

HYGIENIC MEASURES:
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

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>Pungent</td>
</tr>
<tr>
<td>ODOR THRESHOLD:</td>
<td>No data available</td>
</tr>
<tr>
<td>FLASH POINT:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IGNITION TEMPERATURE:</td>
<td>No data available</td>
</tr>
<tr>
<td>DECOMPOSITION TEMPERATURE:</td>
<td>No data available</td>
</tr>
<tr>
<td>LOWER EXPLOSION LIMIT (VOL%):</td>
<td>No data available</td>
</tr>
<tr>
<td>UPPER EXPLOSION LIMIT (VOL%):</td>
<td>No data available</td>
</tr>
<tr>
<td>FLAMABILITY (SOLIDM, GAS):</td>
<td>The substance or mixture is not classified as oxidizing</td>
</tr>
<tr>
<td>pH (Neutrality):</td>
<td>&lt; 2 at 68 °F (20 °C)</td>
</tr>
<tr>
<td>MELTING POINT/FREEZING POINT:</td>
<td>Not Available</td>
</tr>
<tr>
<td>BOILING POINT/RANGE:</td>
<td>212 °F (100 °C)</td>
</tr>
<tr>
<td>VAPOR PRESSURE:</td>
<td>17 mmHg (23hpa)</td>
</tr>
<tr>
<td>DENSITY:</td>
<td>1 – 1.5 g/cm3 at 73 °F (23 °C)</td>
</tr>
<tr>
<td>WATER SOLUBILITY:</td>
<td>Soluble</td>
</tr>
<tr>
<td>PARTITION COEFFICIENT (n-Octane/Water):</td>
<td>No data available</td>
</tr>
<tr>
<td>VISCOSITY, DYNAMIC:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>VISCOSITY, KINEMATIC:</td>
<td>&gt; 20.5 mm²/s at 104 °F (40 °C)</td>
</tr>
<tr>
<td>RELATIVE VAPOR DENSITY:</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Section 10, Stability & Reactivity

10.1 REACTIVITY:
No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY:
The product is chemically stable.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:
Stable under recommended storage conditions.

10.4 CONDITIONS TO AVOID:
No data available.

10.5 HAZARDOUS POLYMERIZATION:
No data available.

Section 11, Toxicological Information

11.1 ACUTE TOXICITY:
Harmful if swallowed or if inhaled.

11.2 COMPONENTS:
**Chromium Trichloride:**
Acute oral toxicity: LD50 (Rat): 1,870 mg/kg
Acute inhalation toxicity: LC50 (Mouse): 0.03 mg/l
Exposure time: 4h
Test Atmosphere: dust/mist

**Sodium dichromate, dehydrate:**
Acute inhalation toxicity: LC50 (Rat): 0.2 mg/l
Exposure time: 4h
Test Atmosphere: dust/mist

11.3 SKIN CORROSION/IRRITATION:
Causes severe burns.

11.4 SERIOUS EYE DAMAGE/EYE IRRITATION:
Causes serious eye damage.

11.5 RESPIRATORY OR SKIN SENSITIZATION:
Skin sensitization: May cause an allergic skin reaction.
Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

11.6 GERM CELL MUTAGENICITY:
May cause genetic defects.

11.7 REPRODUCTIVE TOXICITY:
May damage fertility or the unborn child.
11.8 STOT-SINGLE EXPOSURE:
Not classified based on available information.

11.9 STOT-REPEATED EXPOSURE:
Causes damage to organs through prolonged or repeated exposure.
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

11.10 ASPIRATION TOXICITY:
Not classified based on available information.

11.11 CARCINOGENICITY:
May cause cancer by inhalation.

<table>
<thead>
<tr>
<th>IARC</th>
<th>Group 1: Carcinogenic to humans</th>
<th>7789-12-0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sodium dichromate, dehydrate</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NTP</th>
<th>Known to be human carcinogen</th>
<th>7789-12-0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sodium dichromate, dehydrate</td>
<td></td>
</tr>
</tbody>
</table>

Section 12, Ecological Information

12.1 OTHER INFORMATION:
Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
May be harmful to the environment if released in large quantities.
Water polluting material.

Section 13, Disposal Considerations

13.1 DISPOSAL METHODS:
Waste from residues    :   Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Contaminated packaging :   Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14, Transportation Information

DOT
UN number           : 3264
Description of the goods    Corrosive liquid, acidic, inorganic, n.o.s.
(Sodium dichromate, dehydrate, chromium trichloride)
Class                : 8
Packing group        : II
Labels               : 8
Emergency Response   : 154
Guidebook Number     :
IATA
UN number 3264
Description of the goods Corrosive liquid, acidic, inorganic, n.o.s.
(Sodium dichromate, dehydrate, chromium trichloride)
Class 8
Packing group II
Labels 8
Packing instruction (cargo aircraft) 855
Packing instruction (passenger aircraft) 851
Packing instruction (passenger aircraft) Y840

IMDG
UN number 3264
Description of the goods CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Sodium dichromate, dehydrate, chromium trichloride)
Class 8
Packing group II
Labels 8
EmS Number 1 F-A
EmS Number 2 S-B
Marine pollutant yes

Special precautions for user
No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Section 15, Regulatory Information

15.1 TSCA LIST:
All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

15.2 SARA 311/312 HAZARDS
Chronic Health Hazard
Corrosive to Metals
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

15.3 SARA 302
The following components are subject to reporting levels established by SARA Title III, Section 302:
chromium trichloride 10025-73-7 1 %
15.4 SARA 313
The following components are subject to reporting levels established by SARA Title III, Section 313:
- chromium trichloride 10025-73-7 1 %
- sodium dichromate, dehydrate 7789-12-0 1 %

15.5 CLEAN AIR ACT
Ozone-Depletion Potential
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
- chromium trichloride 10025-73-7 1 %
- sodium dichromate, dehydrate 7789-12-0 1 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

CALIFORNIA PROP 65
⚠️ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Section 16, Other Information

16.1 HMIS CLASSIFICATION

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS attempts to convey full health warning information to all employees.

16.2 SDS REVISION DATE: 4/23/2019

Notice:
Butterfield Color, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Prepared By: HS&E Compliance Resources