Section 1 Identification

PRODUCT IDENTITY: Perma-Shake® Color Hardener
(formerly Perma-Cast® Shake-on Color Hardener)

PRODUCT USES: Concrete Color Hardener

COMPANY IDENTITY: Butterfield Color

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

May Cause Cancer (Inhalation): (CAT: 1)

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H314 Causes skin burns and eye damage. (CAT: 4)
H335 May cause respiratory irritation. (CAT: 3)
H350 May cause cancer (Inhalation). (CAT: 1)
H372 Causes damage to organs (Lung/Respiratory System) through prolonged or repeated exposure (Inhalation) (CAT: 1)

2.2 PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P201 Obtain special instructions before use.
P202 Do not handle till all safety precautions are understood.
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>Crystalline Silica, Quartz</td>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>50-70</td>
</tr>
<tr>
<td>Portland Cement</td>
<td>65997-15-1</td>
<td>266-043-4</td>
<td>20-40</td>
</tr>
<tr>
<td>Metal Oxides</td>
<td>Varies</td>
<td></td>
<td>1-10</td>
</tr>
</tbody>
</table>

*Notes: Metal oxides may contain iron
The following colors contain chromium III: P20 Ginko, P28 Slate Gray, P33 Juniper

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, wash with soapy water.

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. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.
4.7 NOTES TO PHYSICIAN:
There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Section 5, Fire Fighting Measures

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
The material is non-flammable and will not support combustion.

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
NA.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
NA.

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
NA

Section 6, Accidental Release Measures

6.1 SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:
Isolate and contain spill. Avoid excessive dust generation and runoff into a sewer or waterway. Materials can be collected and reused if possible. Place waste in a disposal container and dispose of in accordance with local and state RCRA rules and regulation.

6.2 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, EMERGENCY PROCEDURES:
A disposal dusk mask can be used to prevent excessive dust accumulation.

6.3 ENVIRONMENTAL PRECAUTIONS:
NA.

6.4 METHODS AND MATERIAL FOR CONTAINMENT & CLEAN-UP:
Pick up material and reuse as needed.

Section 7, Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING:
Standard work gloves, disposable dust mask to control excessive dust.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Store in a cool, dry location. Isolate from Fluorine, magnesium, acids, alum, ammonium salts.
Section 8, Exposure Controls / Personal Protective Equipment

8.1 EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>OSHA (mg/M³)</th>
<th>NIOSH (mg/M³)</th>
<th>ACGIH® (mg/M³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA, QUARTZ, SiO₂ (CAS 14808-60-7)</td>
<td>10 TWA (%SiO₂+2) (respirable)</td>
<td>0.05 TWA (respirable)</td>
<td>0.025 TWA (respirable)</td>
</tr>
<tr>
<td>PORTLAND CEMENT (CAS 65997-15-1)</td>
<td>15 TWA (total dust)</td>
<td>10 TWA (total dust)</td>
<td>1 TWA (no asbestos and &lt;1% crystalline silica)</td>
</tr>
<tr>
<td></td>
<td>5 TWA (respirable fraction)</td>
<td>5 TWA (respirable fraction)</td>
<td></td>
</tr>
</tbody>
</table>

EXPOSURE CONTROL NOTATIONS

ACGIH
SILICA, QUARTZ, SiO₂ (14808-60-7): CARCINOGENS (A2 – SUSPECTED HUMAN CARCINOGEN)

EXPOSURE LIMITS SUPPLEMENTAL

OSHA
SILICA, QUARTZ, SiO₂ (14808-60-7): MINERAL DUSTS: ((30)/(% SiO₂+2) mg/m³ TWA, total dust; (250)/(% SiO₂+5) mppcf TWA, respirable fraction; (10)/(% SiO₂+2) mg/m³ TWA, respirable fraction)
PORTLAND CEMENT (65997-15-1): MINERAL DUSTS: (50 mppcf TWA (<1% crystalline silica))

ACGIH
SILICA, QUARTZ, SiO₂ (14808-60-7): TLV BASIS – CRITICAL EFFECTS: (lung cancer; pulmonary fibrosis)
PORTLAND CEMENT (65997-15-1): TLV BASIS – CRITICAL EFFECTS: (pulmonary function; respiratory symptoms; asthma)

Key to abbreviations
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures
ACGIH = American Conference on Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration

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


8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION:
Splash goggles or safety glasses.

HAND PROTECTION:
Use standard cloth work 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

APPEARANCE: Color Pigmented Powder (Color Varies)
ODOR: No Odor
ODOR THRESHOLD: Not Available
pH (Neutrality): Not Available
MELTING POINT/FREEZING POINT: Not Available
BOILING RANGE (IBP,50%,Dry Point): Not Applicable
FLASH POINT (TEST METHOD): Not Applicable
EVAPORATION RATE (n-Butyl Acetate=1) Not Applicable
FLAMMABILITY CLASSIFICATION: Not Applicable
LOWER FLAMMABLE LIMIT IN AIR (% by vol): Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol): Not Available
VAPOR PRESSURE (mm of Hg @ 20 C): Not Applicable
VAPOR DENSITY (air=1): Not Applicable
GRAVITY @ 68/68 F / 20/20 C:
DENSITY: Not Available
SPECIFIC GRAVITY (Water=1): Not Available
POUNDS/GALLON: Not Available
WATER SOLUBILITY: Insoluble
PARTITION COEFFICIENT (n-Octane/Water): Not Available
DENSITY: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VOCs (>0.044 Lbs./Sq In): Not Applicable
TOTAL VOC'S (TVOC)*: Not Applicable
NONEXEMPT VOC'S (CVOC)*: Not Applicable
HAZARDOUS AIR POLLUTANTS (HAPS): Not Available
NONEXEMPT VOC PRESSURE (mm of Hg @ 20 C): Not Applicable
VISCOSITY @ 20 C (ASTM D445): Not Applicable
* 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 Oxidizing Agents, Unintentional contact with water.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
NL.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur

Section 11, Toxicological Information

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Primary dust irritation to skin, and eyes. Primary irritation to eyes, redness, tearing, blurred vision. Wash thoroughly after handling with soap and water

11.12 INHALATION:
May irritate respiratory tract.

11.13 SWALLOWING:
Harmful if swallowed. Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED
NL

11.3 CHRONIC HAZARDS

11.31 NL

11.4 MAMMALIAN TOXICITY INFORMATION
No recognized unusual toxicity to plants and animals

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:
NL.

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
Material may be picked up, reclaimed and reused.

Section 14, Transportation Information

| MARINE POLLUTANT: | No |
| DOT/TDG SHIP NAME: | Non Regulated |
| DRUM LABEL: | Non Regulated |
| IATA / ICAO: | Non Regulated |
| IMO / IMDG: | Non Regulated |

Section 15, Regulatory Information

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute, Chronic
All components of this product are on the TSCA list.
SARA Title III Section 313 Supplier Notification
SARA TITLE III INGREDIENTS
Acute, Chronic
RISK AND SAFETY PHRASES
R48/20 Harmful; danger of serious damage to health by prolonged exposure through inhalation.
R49 May cause cancer by inhalation.
S53 Avoid exposure – obtain special instructions before use

15.2 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>SILICA, QUARTZ, SiO2</td>
<td>14808-60-7</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>PORTLAND CEMENT</td>
<td>65997-15-1</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

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

15.3 INTERNATIONAL REGULATIONS
NA

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
NA
Section 16, Other Information

16.1 HAZARD RATINGS:
HEALTH (HMIS): 3, FLAMMABILITY: 0, Reactivity: 0, Personal Protection: X

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 DATE: 2/22/2019

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