

**SECTION 1: Identification of the substance/mixture**

**SECTION 1. IDENTIFICATION**

Product name Clear Guard® First Seal™

**Manufacturer or supplier's details**

Company name of supplier Butterfield Color, Inc.

Address 625 W Illinois Ave  
Aurora, IL 60506

Telephone (630) 906-1980

Emergency telephone CHEMTREC: (800) 424-9300 (USA)  
CANUTEC (613-996-6666 (CANADA))

**Recommended use of the chemical and restrictions on use**

Recommended use Reactive penetrating sealer

**SECTION 2: Hazards Identification**

**GHS Classification**

Skin irritation Category 2

Eye irritation Category 2A

**GHS Label element**

Hazard pictograms



Signal Word Warning

Hazard Statements H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Prevention:**

Precautionary Statements P261 Avoid breathing spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves / protective clothing / face protection / eye protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Other hazards**

None known.

**SECTION 3: Composition Information on Ingredients**

Substance / Mixture                      Mixture  
Chemical nature                              Silicone emulsion

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Triethoxyoctylsilane	2943-75-1	>= 10 - < 30
Ethoxylated lauryl alcohol	9002-92-0	>= 1 - < 5
Water	NA	>= 65

**SECTION 4: First Aid Measures**

General advice                              In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled                                      If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.

In case of skin contact                      In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Get medical attention. Wash clothing before reuse.  
Thoroughly clean shoes before reuse.

In case of eye contact                      In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.  
If easy to do, remove contact lens, if worn.  
Get medical attention.

If swallowed                                  If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed                      Causes skin irritation.  
Causes serious eye irritation.

Protection of first-aiders                      First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician                              Treat symptomatically and supportively.

**SECTION 5: Fire Fighting Measures**

Suitable extinguishing media              Water spray  
Alcohol-resistant foam  
Dry chemical  
Carbon dioxide (CO2)

Unsuitable extinguishing media              None known  
Specific hazards during fire fighting              Exposure to combustion products may be a hazard to health.

Hazardous combustion products	Carbon oxides Silicon oxides Formaldehyde
Specific extinguishing methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**SECTION 6: Accidental Release Measures**

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers) Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**SECTION 7: Handling and Storage**

Technical measures	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	Use only with adequate ventilation.
Advice on safe handling	Do not get on skin or clothing. Avoid inhalation of vapor or mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from water. Protect from moisture. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	Keep in properly labeled containers. Store in accordance with the particular national regulations.
Materials to avoid	Do not store with the following product types: Strong oxidizing agents

**SECTION 8: Exposure Control**

**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Hazardous components without workplace control parameters**

Ingredients	CAS-No.
Triethoxyoctylsilane	2943-75-1
Ethoxylated lauryl alcohol	9002-92-0

**Occupational exposure limits of decomposition products**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHAZ-1
		STEL	1,000 ppm	ACGIH

**Engineering measures**

Processing may form hazardous compounds (see SECTION 10).  
Ensure adequate ventilation, especially in confined areas.  
Minimize workplace exposure concentrations.

**Personal protective equipment**

Respiratory protection

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection Material

Impervious gloves

Remarks

Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection

Wear the following personal protective equipment:  
Safety goggles

Skin and body protection

Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.).

Hygiene measures

Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones/ organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)).

**SECTION 9: Physical and Chemical Properties**

Appearance	liquid
Color	white
Odor	alcoholic
Odor Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	100° C
Flash point	> 100° C Method: Seta closed cup
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapor pressure	No data available
Relative vapor density	No data available
Relative density	0.94
Solubility(ies) Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Thermal decomposition	No data available

Viscosity	
Viscosity, dynamic	480 mPa.s
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available

## SECTION 10: Stability and Reactivity

Reactivity	Not classified as a reactivity hazard.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid	Exposure to moisture.
Incompatible materials	Oxidizing agents Water
Hazardous decomposition products	
Contact with water or humid air	Ethanol
Thermal decomposition	Formaldehyde

## SECTION 11: Toxicological Information

### Information on likely routes of exposure

Inhalation  
Skin contact  
Ingestion  
Eye contact

### Acute toxicity

Not classified based on available information.

### Product:

Acute oral toxicity	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
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**Ingredients:**

**Triethoxyoctylsilane:**

Acute oral toxicity LD50 (Rat): > 5,110 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity LD50 (Rat): 6,730 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Acute oral toxicity LD50 (Rat): > 2,000 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity LD50 (Rat): > 1.6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Remarks: Based on data from similar materials

Acute dermal toxicity LOSO (Rat): > 2,000 mg/kg  
Remarks: Based on data from similar materials

**Skin corrosion/irritation**

Causes skin irritation.

**Ingredients:**

**Triethoxyoctylsilane:**

Species: Rabbit  
Result: Skin irritation  
Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Result: No skin irritation  
Remarks: Based on data from similar materials

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Ingredients:**

**Triethoxyoctylsilane:**

Species: Rabbit  
Result: No eye irritation  
Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Result: Irreversible effects on the eye  
Remarks: Based on data from similar materials

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.

**Ingredients:**

**Ethoxylated lauryl alcohol:**

Test Type: Maximization Test (GPMT)  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative  
Remarks: Based on data from similar materials

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:**

**Triethoxyoctylsilane:**

Genotoxicity in vitro Test Type: Mutagenicity (in vitro mammalian cytogenetic test)  
Result: negative  
Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Genotoxicity in vitro Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**Ingredients:**

**Triethoxyoctylsilane:**

Effects on fertility Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat, male and female  
Application Route: Ingestion  
Symptoms: No effects on fertility  
Remarks: Based on test data

Effects on fetal development

Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat, male and female  
Application Route: Ingestion  
Symptoms: No effects on fetal development  
Remarks: Based on test data



Reproductive toxicity

Assessment: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Ingredients:**

**Triethoxyoctylsilane:**

Routes of exposure: Ingestion

Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

**Repeated dose toxicity**

**Ingredients:**

**Triethoxyoctylsilane:**

Species: Rat

Application Route: Ingestion

Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Species: Rat

NOAEL:  $\geq$  100 mg/kg

Application Route: Ingestion Exposure time: 90 d

Method: OECD Test Guideline 408

Remarks: Based on data from similar materials

**Aspiration toxicity**

Not classified based on available information.

**Further information**

**Ingredients:**

**Triethoxyoctylsilane:**

Remarks: Findings from a combined repeated-dose toxicity study with reproductive/developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.

**SECTION 12: Ecological Information**

**Ecotoxicity**

**Ingredients:**

**Triethoxyoctylsilane:**

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia sp.): > 0.049 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility

Toxicity to algae

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.13 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility

**Ethoxylated lauryl alcohol:**

Toxicity to fish

LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials

Toxicity to algae

EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity)

1

Toxicity to fish (Chronic toxicity)

NOEC (Lepomis macrochirus (Bluegill sunfish)): > 0.1 - 1 mg/l  
Exposure time: 30 d  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

NO50 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l  
Exposure time: 21 d  
Remarks: Based on data from similar materials

**Persistence and degradability**

**Ingredients:**

**Triethoxyoctylsilane:**

Biodegradability

Result: Not readily biodegradable.  
Biodegradation: 31.5 %  
Method: OECD Test Guideline 301D  
Remarks: Based on test data

**Ethoxylated lauryl alcohol:**

Biodegradability

Result: rapidly degradable  
Remarks: Based on data from similar materials

**Bioaccumulative potential**

**Ingredients:**

**Triethoxyoctylsilane:**

Partition coefficient:  
n-octanol/water

log Pow: 6.41  
Method: OECD Test Guideline 117

**Ethoxylated lauryl alcohol:**

Bioaccumulation

Bioconcentration factor (BCF): < 500  
Remarks: Based on data from similar materials

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13: Disposal Considerations**

**Disposal methods**

Resource Conservation and  
Recovery Act (RCRA)

This product has been evaluated for RCRA characteristics  
and does not meet the criteria of hazardous waste if discarded in  
its purchased form

Waste from residues

Dispose of in accordance with local regulations

Contaminated packaging

Dispose of as unused product  
Empty containers should be taken to an approved waste  
handling site for recycling or disposal

**SECTION 14: Transportation Information**

**International Regulation**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**

Not regulated as a dangerous good

**SECTION 15: Regulatory Information**

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Copper nitrate	3251-23-8	100	*

\*Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ

**SARA 311/312 Hazards** Acute Health Hazard

**SARA 302** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**SARA 313** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minim is) reporting levels established by SARA Title III, Section 313

**US State Regulations**

**Pennsylvania Right To Know**

Water	7732-18-5	85 %
Triethoxyoctylsilane	2943-75-1	6 – 10 %
n-Octyl silsesquioxane ethoxy- and hydroxy- terminated	1096587-78-8	1 – 5 %

**New Jersey Right To Know**

Water	7732-18-5	85 %
Triethoxyoctylsilane	2943-75-1	6 – 10 %
n-Octyl silsesquioxane ethoxy- and hydroxy- terminated	1096587-78-8	1 – 5 %
Ethoxylated lauryl alcohol	9002-92-0	1 – 5 %
Polyethylene oxide lauryl ether	64-17-5	0.1 – 1 %
Ethanol		

**California Prop 65** This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**The ingredients of this product are reported in the following inventories:**

KECI	All ingredients listed, exempt or notified.
REACH	All ingredients (pre-)registered or exempt.
TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
ENCS/ISHL	All components are listed on ENCS/ISHL or exempted from inventory listing.

PICCS All ingredients listed or exempt.

DSL This product contains one or more substances which are not on the Canadian Domestic Substances List (DSL). Import of this product into Canada has volume limitations.

NZIoC All ingredients listed or exempt.

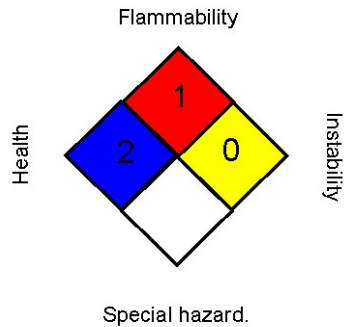
**Inventories**

AICS (Australia), DSL (Canada) , IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines) , TSCA (USA)

**SECTION 16: Other Information**

**Further information**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**Full text of other abbreviations**

ACGIH USA. ACGIH Threshold Limit Values (TLV)  
 NIOSH REL USA. NIOSH Recommended Exposure Limits  
 OSHA Z-1 USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  
 ACGIH / STEL Short-term exposure limit  
 NIOSH REL / TWA Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek  
 OSHA Z-1 / TWA : 8-hour time weighted average

Sources of key data used to compile the Safety Data Sheet Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Issue Date 6/14/2017

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.