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.
Precautionary Statements	**Prevention:** 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).

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

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: >= 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.

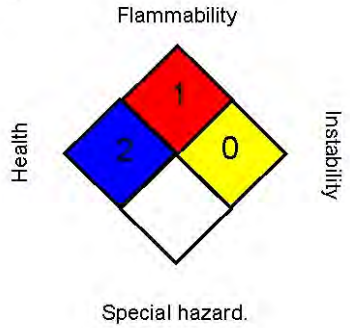
Inventories

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:

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.