



# Safety Data Sheet

## Seal Bond MA-299

Revision Date: November 12, 2015

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MA-299  
 PRODUCT CODES: MA-299

MANUFACTURER: Seal Bond  
 STREET ADDRESS: 14851 Michael Lane  
 CITY, STATE, ZIP: Spring Lake, MI 49456

INFORMATION PHONE: 616-850-0507  
 EMERGENCY PHONE: Chemtrec 800-424-9300  
 FAX PHONE: 616-850-0530

PREPARED BY: Kelly Barnes

### SECTION 2. HAZARDS IDENTIFICATION

Hazard Overview

NFPA 704 CODES: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious; 4=Severe  
 HMIS III Codes: \*=Chronic; 0=Minimal; 1=slight; 2=moderate; 3=high;4=extreme

HEALTH (BLUE)      FLAMMABILITY (RED)      REACTIVITY (YELLOW)

NFPA: 2	NFPA: 1	NFPA: 0
HMIS: 2	HMIS: 1	HMIS: 0



**SIGNAL WORD: WARNING**  
**No smoking. Keep away from heat, sparks or open flames.**  
 Use in well ventilated area.  
 Avoid breathing fumes.  
 Prolonged use may cause irritation.  
 Vented container storage

**P102** Keep out of reach of children.      **P103** Read sds and label before use  
**Health Statements :** **H320** Causes eye irritation    **H315** Causes skin irritation    **H317** May cause an allergic skin reaction.  
**Precautionary Statements :** **P210** Keep away from heat/sparks/open flames/hot surfaces. -No smoking.    **P234** Keep only in original container.    **P261** Avoid breathing spray/fumes.    **P264** Wash skin thoroughly after handling.  
**P271** Use only outdoors or in a well-ventilated area.    **P261** Avoid breathing fumes, mist, spray, vapors  
**P280** Wear protective impervious gloves. Wash clothing after use. Use face and eye protection.  
**Response: P302 + P352 IF ON SKIN:** Wash with plenty of soap and water.  
**P333 + P313** If skin irritation or rash occurs: Get medical advice/attention.

**P362 + P364** Take off contaminated clothing and wash it before reuse.

**Storage: P403** Store in a well-ventilated place.

**Disposal: P501** Dispose of contents/ container to an approved waste disposal plant.

**Other hazards** May generate flammable hydrogen gas. Avoid contact with water, alcohols, acidic, basic, or oxidizing materials.

**ACUTE EFFECTS OF OVEREXPOSURE AND PRECAUTIONS:** Wear protective gloves/eye and face protection/protective clothing. Dispose of contents/container in accordance with regulations.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:** Triethoxyoctylsilane **Case No:** 2943-75-1 **Concentration %:** =5.0 < 7.0

5-Chloro-2-methyl-3(2H)-isothiazolone, mix with 2-methyl-3(2H)-isothiazolone **Case No:** 55965-84-9 **Concentration:** <0.1%

Water: Balance (Siloxan/silane emulsion with water)

\*Per California South Coast Air Quality Management District (SCAQMD) RULE 443.1, this product has volatile solvents content (VOC) of less than 25 grams/L - VOC Compliant.

### SECTION 4. FIRST AID MEASURES

- **EYE:** Immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention.
- **SKIN:** Remove from skin with water flush and soap. If irritation or adverse symptoms continue, seek medical attention. Remove contaminated clothing. Clean shoes and wash clothing before reuse.
- **INHALATION:** Remove to fresh air. If breathing difficult, seek medical attention immediately if symptoms occur.
- **INGESTION:** Do not take internally. DO NOT induce vomiting. Seek medical attention immediately rinse mouth with water immediately.

### SECTION 5. FIRE-FIGHTING MEASURES

**Special Protective Equipment for Firefighters:** In the event of fire, wear self-contained breathing apparatus and personal protective body equipment. Evacuate area.

**Specific hazards during firefighting:** Do not allow extinguishing medium to contact container contents. Most fire extinguishing media will cause hydrogen evolution, and once the fire is put out, may accumulate in poorly ventilated or confined areas and result in flash fire or explosion if ignited. Exposure to combustion products may be a hazard to health.

Applying foam will release significant amounts of hydrogen gas that can be trapped under the foam blanket.

**Hazardous combustion products:** Carbon oxides; Silicon oxides; Formaldehyde

**Suitable extinguishing media :** Alcohol-resistant foam; Carbon dioxide (CO<sub>2</sub>); Water mist

**Unsuitable extinguishing media:** Dry Chemical

**Specific extinguishing methods:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. 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. Remove undamaged containers from fire area if it is safe to do so.

### SECTION 6. 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 vented container. Clean up remaining materials from spill with suitable absorbent. **CAUTION:** Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Recovered material should be stored in a vented container. **DISPOSAL:** 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

**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. Avoid contact with 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 vented containers. Store in a vented closed container. Store in accordance with the particular national regulations. Product may evolve minute quantities of flammable hydrogen gas which can accumulate. Adequately ventilate to maintain vapors well below flammability limits and exposure guidelines. Do not repackage. Clogged container vents may increase pressure build up.

**Materials to avoid** : Do not store with the following product types: Strong oxidizing agents

**Packaging material: Unsuitable material:** Do not store in or use containers except the original vented product package.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Do not smoke in vicinity of application.** Component Exposure Limits. Ingredients with workplace control parameters  
Contains no substances with occupational exposure limit values.

**Hazardous components without workplace control parameters:**

Triethoxyoctylsilane Case No: 2943-75-1

5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone Case No: 55965-84-9

**Ingredient:** Ethanol Case No: 64-17-5

TWA: 1,000 ppm : 1.900 mg/m<sup>3</sup> Basis: NIOSH REL TWA 1,000 ppm : 1.900 mg/m<sup>3</sup> Basis: OSHA Z-1

STEL 1,000 PPM BASIS: ACGIH

**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. Wash hands before breaks and at the end of workday. **Eye protection:** Safety goggles. Face shield. **Skin and body protection:** Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. **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.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical Form:** Liquid **Color:** Milky White **Odor:** Slight **Specific Gravity @ 25°C:** 1 **Viscosity:** 50 cSt

**Flash Point:** 118°C **Boiling Point:** 100 °C **Vapor Pressure @ 25°C:** Not determined **Oxidizing:** not classed as oxidizing

**Vapor Density:** Not determined. **Solubility in Water:** Not determined. **pH:** Not determined. **Volatile Content:** Undetermined.

## SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions **Possible Hazardous Reactions:** Elevated temperatures may form hazardous compounds. Atomization, vaporization or combustion forms aerosols which can carry siloxane containing materials, carbon oxides and silicon dioxide into the atmosphere. **Conditions to avoid:** Heat, flames and sparks. **Incompatible materials:** Oxidizing agents and Water **Hazardous decomposition products:** Contact with water or humid air : Ethanol

**Thermal decomposition** : Formaldehyde Product may evolve flammable hydrogen gas on contact with water, alcohols, acidic or basic materials, many metals or metallic compounds and can form explosive mixtures in air. When heated to temperatures above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapors. Safe handling conditions may be maintained by keeping vapor concentrations within the occupational exposure limit for formaldehyde. It is also toxic by inhalation, skin absorption and ingestion,

corrosive to skin and eyes, and may cause skin sensitization and respiratory irritation. See OSHA formaldehyde standard, 29 CFR 1910.1048

## SECTION 11. TOXICOLOGICAL INFORMATION

**Likely Routes of exposure:** Inhalation, Skin contact, Ingestion, Eye contact. **Acute toxicity:** Not classified based on available information. **Acute oral toxicity:** estimate : > 5,000 mg/kg **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

**Ingredient: 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** **Acute oral toxicity:** Acute toxicity estimate : 100 mg/kg **Acute inhalation toxicity:** LC50 : 3 mg/l Exposure time: 4 h **Test atmosphere:** vapor **Acute dermal toxicity:** LD50(rat): 6,730 mg/kg Acute toxicity estimate : 300 mg/kg **Skin corrosion/irritation** Causes skin irritation. **Ingredients:** **Triethoxyoctylsilane:** Species: Rabbit Result: Skin irritation Remarks: Based on test data **\*Ingredient: 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** Species: Rabbit **Result:** Corrosive after 3 minutes to 1 hour of exposure. **Serious eye damage/eye irritation:** Not classified **Ingredients:** **Triethoxyoctylsilane:** Species: Rabbit Result: No eye irritation Remarks: Based on test data **\*Ingredients: 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** Species: Rabbit Result: Irreversible effects on the eye **Respiratory or skin sensitization:** May cause an allergic skin reaction. Respiratory sensitization: Not classified based on available information. **\*Ingredients: 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** **Test Type:** Buehler Test **Routes of exposure:** Skin contact **Species:** Guinea pig Result: positive **Assessment:** Probability or evidence of skin sensitization in humans **Germ cell mutagenicity:** Not classified **\*Ingredient: Triethoxyoctylsilane:** **Genotoxicity in vitro:** **Test Type:** Mutagenicity (in vitro mammalian cytogenetic test) **Result:** negative **Remarks:** Based on data **Carcinogenicity** Not classified. **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.

**\*Ingredient: 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

**\*Ingredient: 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 **Aspiration toxicity:** Not classified **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/ 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. **5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** **Toxicity to fish:** LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l Exposure time: 96 h **Toxicity to daphnia and other :** EC50 (Daphnia magna (Water flea)): 0.16 mg/l aquatic invertebrates Exposure time: 48 h **Toxicity to algae:** ErC50 (Selenastrum capricornutum (green algae)): 0.027 mg/l Exposure time: 72 h M-Factor (Acute aquatic toxicity) : 10 **Persistence and degradability:** **Ingredients: Triethoxyoctylsilane:** **Biodegradability:** Result: Not readily biodegradable. **Biodegradation:** 31.5 % **Method:** OECD Test Guideline 301D **Remarks:** Based on test data

**\* 5-Chloro-2-methyl-3(2H)-isothiazolone, mixt. with 2-methyl-3(2H)-isothiazolone:** **Biodegradability:** Result: Not readily biodegradable. **Bioaccumulative potential** **\* Triethoxyoctylsilane:** **Partition coefficient: n-: log Pow:** 6.41 octanol/water **Method:** OECD Test Guideline 117 **Mobility in soil;** No data available **Other adverse effects:** No data available

## SECTION 13. WASTE DISPOSAL

**READ SECTION 6 ACCIDENTAL RELEASES** 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. **Waste Code:** D003 RCA Hazard Class (40 CFR 261)

## SECTION 14. Transport Information

**-DOT SHIPPING NAME (49CFR 172.101):** Non Flammable Liquid, NOS, water-based Mixture of Silanes

**- DOT ID# (49CFR 172.101):** Non-Regulated **- DOT HAZARD CLASS:** Non Flammable Liquid, NOS

**-LABEL:** None Required **- PLACARD:** None Required **Air Shipment (IATA):** not IATA regulated. Vented packages forbidden for air transport. **Ocean Shipment:** Not subject to IMDG code **HS TARIFF CLASS CODE:** 3214.90

## SECTION 15. REGULATORY INFORMATION

**TSCA Status:** All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**EPA SARA Title III Chemical Listings: Section 302 Extremely Hazardous Substances:** None.

**Section 304 CERCLA Hazardous Substances:** None. **Section 312 Hazard Class: Acute:** Yes. **Chronic:** No. **Fire:** No **Pressure:** No.

**Reactive:** Yes. **Section 313 Toxic Chemicals:** None present or none present in regulated quantities.

**Supplemental State Compliance Information: California:** Warning: Contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm. CAS Number: 75-07-0. Wt %: <0.1. Component Name: Acetaldehyde (Carcinogenic). **Massachusetts:** CAS Number: 75-07-0. Wt %: <0.1 Component Name: Acetaldehyde. **New Jersey:** [CAS Number: 7732-18-5. Wt %:40.0 - 70.0. Component Name: Water.] [Case Number: 68037-59-2. Wt % 5.0 - 7.0. Component Name: Dimethyl, methylhydrogen siloxane]. [Case Number: 2943-75-1. Weight %: 5.0 - 7.0. Component Name: N-Octyltriethoxysilane.] [Case Name: 9002-92-0. Wt %: 0.5-1.0. Component Name: Polyethylene oxide lauryl ether.]

**Pennsylvania:** [Case Number: 68037-59-2. Wt %: 40.0 - 70.0. Component Name: Water.] [Case Number: 68037-59-2. Wt%: 5.0 - 7.0 Component Name: Dimethyl, methylhydrogen siloxane.] [Case Number: 2943-75-1. Wt %:5.0 - 7.0 Component Name: N-Octyltriethoxysilane].

## SECTION 16. OTHER INFORMATION

All terms and abbreviations have been defined in various government publications, or are standard chemical terms used by IUPAC. The data and recommendations herein are based upon our research and the research of others, and are believed to be accurate. However, no warranty or guarantee of their accuracy is made; and the products are distributed without warranty, expressed or implied, including the limited warranties of merchantability of fitness for particular purpose. The recommended industrial hygiene and safe handling procedures are believed to be appropriate. Neither this data sheet nor any statement contained herein grants or extends any license, express or implied, in connection with patents issued or pending which may be the property of the manufacturer or others. The manufacturer makes no warranties, expressed or implied, as to the accuracy or adequacy of the information contained herein. The manufacturer shall not be liable to the vendee, the vendee's employees or anyone for any direct, special or consequential damages arising out of or in connection with this accuracy, adequacy or furnishing of such information.

2	HEALTH/SALUD
1	FLAMMABILITY
1	REACTIVITY