

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT NAME:</b> EkoBond			
<b>PRODUCT NUMBER:</b> E610			
TRADE NAME: EkoBond			
GENERAL USE: Fabric Cement			
CHEMICAL FAMILY: Polychloroprene in a mixed solvent and aqueous base.			
PRODUCT DESCRIPTION: Green liquid, slight odor of ammonia			
MANUFACTURER: <b>Stewart Systems</b>			
TELEPHONE NUMBER (General Inquiries) 888-356-7659		EFFECTIVE DATE: <b>June 16, 2010</b>	
ADDRESS (NUMBER, STREET, P.O. BOX) 5500 Sullivan Street		DATE OF EXPIRATION: <b>June 15, 2013</b>	
(CITY, STATE AND ZIP CODE) Cashmere, WA 98815		SUPERSEDES DATE: <b>New Issue.</b>	
COUNTRY USA		<b>CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBERS</b>	
			
		1-800-255-3924 North America (Toll Free)	813-248-0585 International and Local Calls

## SECTION 2 - HAZARDS IDENTIFICATION

<b>EMERGENCY OVERVIEW</b>			
<p><b>Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause allergic skin reaction. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.</b></p>			
USA (DOT)	CANADA (WHMIS) SYMBOL(S)	EUROPEAN	(GHS) HAZARD SYMBOLS
None	 	 	  
<b>HMIS HAZARD RATINGS</b>			
<b>0 = INSIGNIFICANT, 1 = SLIGHT, 2 = MODERATE</b> <b>3 = HIGH, 4 = EXTREME</b> <b>* - CHRONIC HEALTH HAZARD</b>		HEALTH:	2
		FLAMMABILITY:	0
		PHYSICAL HAZARD:	0
<b>REQUIRED PERSONAL PROTECTIVE EQUIPMENT:</b>			
<b>HMIS PERSONAL PROTECTIVE EQUIPMENT LETTER:</b>  <b>B</b>		 	<b>Wear safety glasses and gloves.</b>
<b>RISK PHRASES</b>			
<p>R38: Irritating to skin.                  R43: May cause sensitization by skin contact.                  R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.                  R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.                  R63: Possible risk of harm to the unborn child.                  R65: Harmful may cause lung damage if swallowed.                  R67: Vapours may cause drowsiness and dizziness.</p>			
<b>SAFETY PHRASES</b>			
<p>S1/2: Keep locked up and out of the reach of children.                  S7: Keep container tightly closed.                  S36/37: Wear suitable protective clothing and gloves.                  S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).                  S46: If swallowed, seek medical advice immediately and show this container or label.                  S60: this material and its container must be disposed of as hazardous waste.                  S61: Avoid release to the environment. Refer to special instructions/ safety data sheets.                  S62: If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.</p>			

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<b>PRODUCT NAME:</b>	<b>EkoBond</b>
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## SECTION 2 - HAZARDS IDENTIFICATION (Continued)

### POTENTIAL HEALTH EFFECTS

#### ACUTE EXPOSURE EFFECTS

##### INHALATION:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

##### SKIN:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.  
 Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.  
 May be absorbed through skin and cause target organ effects.

##### EYES:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

##### INGESTION:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.  
 May be absorbed following ingestion and cause target organ effects.

#### CHRONIC EXPOSURE EFFECTS

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

#### CARCINOGENICITY:

NTP? **NO**

CALIFORNIA, Prop.65?

IARC MONOGRAPHS? **NO**

**NO**

OSHA REGULATED? **NO**

ESIS NOTATION? **NO**

## SECTION 3 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
<b>WATER</b>	<b>40-60</b>	<b>7732-18-5</b>	<b>231-791-2</b>	<b>None</b>	<b>None</b>
<b>POLYCHLOROPRENE</b>	<b>30-50</b>	<b>9010-98-4</b>	<b>Unlisted</b>	<b>None</b>	<b>None</b>
<b>GLYCEROL ESTERS OF ROSIN ACIDS</b>	<b>1-10</b>	<b>8050-31-5</b>	<b>232-482-5</b>	<b>None</b>	<b>None</b>
<b>ROSIN, POLYMER WITH PHENOL</b>	<b>1-10</b>	<b>68083-03-4</b>	<b>500-192-0</b>	<b>None</b>	<b>None</b>
<b>TOLUENE</b>	<b>1-5</b>	<b>108-88-3</b>	<b>203-625-9</b>	<b>+F, Xn</b>	<b>R11,R38,R48/20, R63,R65,R67</b>
<b>METHYL ALCOHOL</b>	<b>1-4</b>	<b>67-56-1</b>	<b>200-659-6</b>	<b>+F, Xn</b>	<b>R20/21/22</b>
<b>ZINC OXIDE</b>	<b>1-5</b>	<b>1314-13-2</b>	<b>215-222-5</b>	<b>+N</b>	<b>R50/53</b>
<b>2,2'-METHYLENEBIS[6-TERT-BUTYL-P-CRESOL]</b>	<b>&lt;1</b>	<b>119-47-1</b>	<b>204-327-1</b>	<b>NE</b>	<b>NE</b>
<b>ROSIN (colophony)</b>	<b>&lt;1</b>	<b>8050-09-7</b>	<b>232-475-7</b>	<b>Xi</b>	<b>R43</b>
<b>POTASSIUM HYDROXIDE</b>	<b>&lt;1</b>	<b>1310-58-3</b>	<b>215-181-3</b>	<b>Xi</b>	<b>R36/38</b>

**NOTES:** This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1997/2006/EC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European (GHS) directive 91/155/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directive 67/548/EEC.

# MATERIAL SAFETY DATA SHEET

**PRODUCT NAME:** EkoBond  
**PRODUCT NUMBER:** E610

## SECTION 4 - FIRST AID MEASURES

### INHALATION:

Remove person to fresh air. If signs/symptoms develop, get medical attention.

### EYES:

Remove contact lenses. Flush eyes with large amounts of potable water for at least 15 minutes. If irritation signs/symptoms persist, get medical attention.

### SKIN:

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

### INGESTION:

Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## SECTION 5 - FIRE FIGHTING MEASURES

### DATA RELATED TO FIRE:

**FLASH POINT:** NA

**AUTO-IGNITION TEMPERATURE:** NA

**FLAMMABLE/EXPLOSIVE LIMITS:** NA

**LOWER:** NA

**UPPER:** NA

**Sensitivity to Mechanical Impact/ STATIC DISCHARGE:** Not sensitive.

### GENERAL HAZARDS:

Product is not flammable or combustible.

### SUITABLE EXTINGUISHING MEDIA:

As required to fight surrounding fire.

### UNSUITABLE EXTINGUISHING MEDIA:

None.

### FIRE FIGHTING PROCEDURES:

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Closed containers exposed to heat from fire may build pressure and explode.

### HAZARDOUS COMBUSTION PRODUCTS:

Aldehydes, Carbon monoxide, Carbon dioxide, Hydrogen chloride, Ketones.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Observe precautions from other sections. Call Stewart Systems for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with detergent and water. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Cover, but do not seal for 48 hours. Dispose of collected material as soon as possible. In the

## SECTION 7 - HANDLING AND STORAGE

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

**Handling:** Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children.

**Storage:** Store away from acids. Keep container in well-ventilated area. Keep container tightly closed. Keep from freezing.

# MATERIAL SAFETY DATA SHEET

<b>PRODUCT NAME:</b>	EkoBond
<b>PRODUCT NUMBER:</b>	E610

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	CAS #	ACGIH Exposure Limits (mg/m3 unless otherwise noted)	OSHA Exposure Limits (mg/m3 unless otherwise noted)
WATER	7732-18-5	NE	NE
POLYCHLOROPRENE	9010-98-4	NE	NE
GLYCEROL ESTERS OF ROSIN ACIDS	8050-31-5	5	NE
ROSIN, POLYMER WITH PHENOL	68083-03-4	NE	NE
TOLUENE <sup>1</sup>	108-88-3	50 ppm TWA	200 ppm TWA, 300 ppm Ceiling, 500 ppm 10-minute maximum peak
METHYL ALCOHOL <sup>2</sup>	67-56-1	200 ppm TWA	200 ppm TWA (260 mg/m3)
ZINC OXIDE <sup>3</sup>	1314-13-2	2 mg/m3 TWA	5 mg/m3 TWA (fume) 15 mg/m3 TWA (total dust)
2,2'-METHYLENEBIS[6-TERT-BUTYL-P-CRESOL]	119-47-1	NE	NE
ROSIN	8050-09-7	NE	NE
POTASSIUM HYDROXIDE	1310-58-3	2 mg/m3 TLV	NE

**Additional Information:**

- 1- EU OEL: 192 mg/m<sup>3</sup> 50 ppm as TWA; NIOSH REL: TWA 100 ppm (375 mg/m<sup>3</sup>)
- 2- EU OEL: 260 mg/m<sup>3</sup> 200 ppm as TWA; NIOSH REL: TWA 200 ppm (260 mg/m<sup>3</sup>)
- 3- NIOSH REL: Dust: TWA 5 mg/m<sup>3</sup> C 15 mg/m<sup>3</sup>

**RESPIRATORY PROTECTION:**

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half face piece or full-face air-purifying respirator with organic vapor cartridges and N95 particulate prefilters.

**PROTECTIVE GLOVES:**

Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. Gloves made from the following material(s) are recommended: Nitrile Rubber, Polyethylene/Ethylene Vinyl Alcohol.

**EYE PROTECTION:**

Avoid eye contact with vapors, mists, or spray. The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

None generally required.

**ENGINEERING CONTROLS:**

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers. Use with functioning spray booth or local exhaust. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

**WORK / HYGIENIC PRACTICES:**

Wash thoroughly with soap and water after handling this product and before eating drinking or smoking.

# MATERIAL SAFETY DATA SHEET

<b>PRODUCT NAME:</b> EkoBond	
<b>PRODUCT NUMBER:</b> E610	
<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>	
APPEARANCE AND ODOR Green liquid, slight odor of ammonia	VAPOR PRESSURE 17.5 mmHg [@ 20 °C]
ODOR THRESHOLD NR	SPECIFIC GRAVITY (WATER = 1) 1.1
FREEZING / MELTING POINT NR	BOILING POINT 147.00 °F
SOLUBILITY IN WATER NR	COEFFICIENT OF WATER / OIL DISTRIBUTION NR
pH Approximately 10 Units not available or not applicable.	SOLUBILITY IN ORGANIC SOLVENTS NR
FLASH POINT NA	VISCOSITY 200.0 - 600.0 centipoises
FLAMMABLE LIMITS LEL: None UEL: None	VAPOR DENSITY (AIR = 1) 1.1
AUTOIGNITION TEMPERATURE NA	EVAPORATION RATE (WATER = 1) 1
VOLATILE ORGANIC COMPOUND (VOC) INFORMATION 37 g/l per EPA method 24.	
<b>SECTION 10 - STABILITY AND REACTIVITY</b>	
STABILITY Stable.	CONDITIONS TO AVOID: Excessive heat and incompatible materials.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Aldehydes, Carbon monoxide, Carbon dioxide, Hydrogen Chloride, and Ketones during combustion only.	
HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.	CONDITIONS TO AVOID: None related to polymerization.
<b>SECTION 11 - TOXICOLOGICAL INFORMATION (Continued)</b>	
<b>Complete Product</b>	
<b>Oral LD<sub>50</sub></b>	Product is likely to be a gastro-intestinal irritant.
<b>Dermal LD<sub>50</sub></b>	Not known - product is irritating and a sensitizer by contact with skin.
<b>Inhalation LC<sub>50</sub></b>	Not known - product is an irritant to the respiratory tract.
<b>Irritation / Sensitization</b>	Chemical and mechanical irritant to eyes; possible irritant to skin and respiratory tract.
<b>Carcinogenicity</b>	Not Known
<b>Mutagenicity</b>	Not Known
<b>Reproductive Toxicity</b>	Toluene is known to the state of California as a reproductive/developmental toxin.
<b>Teratogenicity</b>	Not Known

# MATERIAL SAFETY DATA SHEET

**PRODUCT NAME:** EkoBond  
**PRODUCT NUMBER:** E610

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Product Components

Component	CAS #	LD50 of Ingredient (Oral, Rat - unless otherwise specified)	LC50 of Ingredient (Inhalation, Rat - unless otherwise specified)
WATER	7732-18-5	90 mol/kg	NE
POLYCHLOROPRENE	9010-98-4	NE	NE
GLYCEROL ESTERS OF ROSIN ACIDS	8050-31-5	NE	NE
ROSIN, POLYMER WITH PHENOL	68083-03-4	NE	NE
TOLUENE	108-88-3	636 mg/kg	49 gm/m3/4 Hours
METHYL ALCOHOL	67-56-1	5,600 mg/kg	64,000 ppm/4 Hours
ZINC OXIDE	1314-13-2	>8,437 mg/kg	2,500 mg/m3 (inhalation, mouse)
2,2'-METHYLENEBIS[6-TERT-BUTYL-P-CRESOL]	119-47-1	LD50 Oral - mouse - 11,000 mg/kg	NE
ROSIN	8050-09-7	3.0 mg/kg	110 mg/m3
POTASSIUM HYDROXIDE	1310-58-3	273 mg/kg	NE

## SECTION 12 - ECOLOGICAL INFORMATION

None available for complete product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:**

Incinerate in an industrial or commercial facility in the presence of a combustible material. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste. Combustion products will include Hydrogen Chloride. Facility must be capable of handling halogenated materials. Toluene - 108-88-3 RCRA - U Series Wastes U220.

## SECTION 14 - TRANSPORT INFORMATION

**PROPER SHIPPING NAME:** Not regulated for transport.

<p><b>DOT HAZARD CLASS / Pack Group:</b> Not regulated</p> <p><b>REFERENCE:</b> 49CFR, IATA, IMO/IMDG</p> <p><b>UN / NA IDENTIFICATION NUMBER:</b> NA</p> <p><b>LABEL:</b> None</p> <p><b>HAZARD SYMBOLS:</b> NA</p>	<p><b>IATA HAZARD CLASS / Pack Group:</b> Not regulated</p> <p><b>IMDG HAZARD CLASS:</b> Not regulated.</p> <p><b>RID/ADR Dangerous Goods Code:</b> NA</p> <p><b>TDG Class / Pack Group:</b></p> <p><b>Hazard Identification Number (HIN):</b> NA</p>
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Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

## SECTION 15 - REGULATORY INFORMATION

**TSCA (USA - Toxic Substance Control Act):** Components are listed under Section 8(b).

**SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):**

Acute Health:	<b>YES</b>	Chronic Health:	<b>YES</b>
Fire:	<b>NO</b>	Sudden Release of Pressure:	<b>NO</b>
Reactive:	<b>NO</b>		

**SARA 313 REPORTABLE INGREDIENTS:** Toluene (108-88-3), Methyl Alcohol (67-56-1), Zinc Oxide (Zinc Compounds) (1314-13-2) are subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA).

**CERCLA (USA - Comprehensive Response Compensation and Liability Act):** Hazardous Substances RQs Toluene 1000 lbs, Methyl Alcohol 5000lbs final RQ's. RQ for product = 20000 lbs.

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: **Warning: This product contains a substance (Toluene, CAS # 108-88-3) known to the State of California as a developmental or reproductive toxin.**

State Right To Know Lists: **Toluene** a component of this product appears on the following State RTK lists: **CA, FL, MA, MN, NJ, PA, IL, RI.** **Methyl Alcohol** a component of this product appears on the following State RTK lists: **CA, MA, NJ, PA, IL, RI**

# MATERIAL SAFETY DATA SHEET

<b>PRODUCT NAME:</b>	<b>EkoBond</b>
<b>PRODUCT NUMBER:</b>	<b>E610</b>

## SECTION 15 - REGULATORY INFORMATION (Continued)

CPR (Canadian Controlled Products Regulations): **This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.**



**WHMIS Classifications: D1,D2**

IDL (Canadian Ingredient Disclosure List): **CAS#67-56-1 Methanol is listed.**

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):

**Listed on DSL and NDSL.**

EINECS (European Inventory of Existing Commercial Chemical Substances):

**CAS#9010-98-4 Polychloroprene is not referenced.**

WGK Water Quality Index: **2**

## SECTION 16 - OTHER INFORMATION

**Legend:**

- ACGIH American Congress of Government Industrial Hygienists
- CAS Chemical Abstracts Service
- EINECS European Inventory of Existing Commercial Chemical Substances
- HMIS Hazardous Materials Identification System
- IARC International Agency for Research on Cancer
- NA Not Available            ND Not Determined
- NE Not Established        NR Not Reported
- NIOSH National Institute for Occupational Safety and Health
- NTP National Toxicology Program
- OSHA Occupational Safety and Health Administration

**REVISION SUMMARY:**

New Issue to USA (ANSI), CANADA (WHMIS), EU, and GHS protocols 6/16/2010 --AC & JTV--

**MSDS Prepared by:**

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.