HAZARD RATING
4=EXTREME
3=MEDIUM
2=MILD
1=SLIGHT
0=INSIGNIFICANT

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

SAFETY DATA SHEET
VEXCON NO. PS135
CERTI-VEX PENSEAL CT

SECTION I - GENERAL INFORMATION

PRODUCT IDENTIFICATION:
CERTI-VEX PENSEAL CT

VOC CONTENT: 1.250 GRAMS/LITER OR <2.00 #/GAL

CATEGORY: WATERPROOFING CONCRETE/MASONRY SEALER

COMMON NAME: SILANE WATER PROOFER

MANUFACTURER: VEXCON CHEMICALS, INC

ADDRESS: 7240 STATE RD, PHILADELPHIA, PA 19135

EMERGENCY NO: 800.858.2828 (PolySat Inc)

TELEPHONE NO: 215.332.7709 (Vexcon)

CHEMTREC NO: 800.424.9300 (CCN# 23822)

PREPARED: JUNE 2013

UPDATED: JUNE 2018

PREPARED BY: DARRY F. MANUEL, PRESIDENT

SECTION II - HAZARD IDENTIFICATION

CLASSIFICATION OF MIXTURE

FLAMMABLE LIQUID – CATEGORY 3
ACUTE TOXICITY (ORAL) – CATEGORY 4
ACUTE TOXICITY (INHALATION) – CATEGORY 3
ACUTE TOXICITY – (DERMAL) – CATEGORY 3
SKIN/CORROSION/IRRITATION - CATEGORY 2

SERIOUS EYE DAMAGE/EYE IRRITATION – CATEGORY 2B

SIGNAL WORD: DANGER

HAZARD STATEMENT: FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED; CAUSES SKIN IRRITATION CAUSES SERIOUS EYE IRRITATION.

PRECAUTIONARY STATEMENTS: KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES – NO SMOKING. EXCESSIVE EXPOSURE MAY RESULT IN EYE, SKIN OR RESPIRATORY IRRITATION. USE WITH ADEQUATE VENTILATION. DO NOT INDUCE VOMITING IF SWALLOWED. USE OF SOLVENT RESISTANT GLOVES, GOGGLES AND OTHER PROTECTIVE CLOTHING IS ADVISED WHEN HANDLING THIS PRODUCT.

SECTION III HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENTS</th>
<th>CAS NO.</th>
<th>%</th>
<th>HAZARD DATA</th>
<th>UN#</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCTYLTRIETHOXYSILANE</td>
<td>2943-75-1</td>
<td>90-100%</td>
<td>NONE</td>
<td>1993</td>
</tr>
<tr>
<td>DIETHYL ETHANOLAMINE</td>
<td>100-37-8</td>
<td>5-10%</td>
<td>ACGIH TLV: 2 ppm NOISH REL: 10 ppm, 50 mg/m³</td>
<td>2866</td>
</tr>
<tr>
<td>RELATED SILANES AND SILANE ESTERS</td>
<td>NONE</td>
<td>1-10%</td>
<td>NOT ESTABLISHED</td>
<td>N/A</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>&lt;1%</td>
<td>OSHA PEL 1000 ppm TWA, ACGIH TLV 1000 ppm TWA</td>
<td></td>
</tr>
</tbody>
</table>

SECTION IV FIRST AID MEASURES

HEALTH HAZARD DATA HAZARD CLASSIFICATION

BASES FOR CLASSIFICATION SOURCE

ROUTES OF EXPOSURE:

INHALATION:
THIS PRODUCT MAY MAY IRRITATE RESPIRATORY PASSAGES VERY SLIGHTLY.

SKIN CONTACT:
THIS PRODUCT MAY CAUSE MODERATE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. SILANE AND ETHANOL COMPONENTS.

SKIN ABSORPTION:
THIS PRODUCT MAY CAUSE MODERATE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. SILANE AND ETHANOL COMPONENTS.

EYE CONTACT:
THIS PRODUCT MAY BE AN EYE IRRITANT. DIRECT CONTACT MAY CAUSE MILD IRRITATION. SILANE AND ETHANOL COMPONENTS.

INGESTION / INHALATION:
SMALL AMOUNTS OF LIQUID ASPIRATED INTO THE RESPIRATORY SYSTEM DURING INGESTION, OR FROM VOMITING, MAY CAUSE BRONCHOPNEUMONIA OR PULMONARY EDEMA. DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION. OVEREXPOSURE BY INGESTION MAY CAUSE DROWSINESS, DIZZINESS, CONFUSION, OR LOSS OF COORDINATION.

EFFECTS OF OVEREXPOSURE:

TLV 1000 ppm ETHYL ALCOHOL
NO KNOWN APPLICABLE INFORMATION. LIQUIDS MODERATELY IRRITATING ON SKIN AND EYES.

ACUTE OVEREXPOSURE:
MODERATE IRRITATION BY LIQUID TO SKIN AND EYES. OVEREXPOSURE BY INGESTION MAY INJURE THE FOLLOWING ORGAN(S): NERVOUS SYSTEM, BRAIN.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN: WASH WITH SOAP AND LARGE QUANTITIES OF WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF SKIN IRITATION DEVELOPS AND PERSISTS.

INHALATION:
MOVE TO LOCATION FREE FROM VAPORS. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF BREATHING STOPS, BEGIN ARTIFICIAL RESPIRATION AND SEEK IMMEDIATE MEDICAL ATTENTION.

NOTE: THIS MATERIAL RELEASES METHYL ALCOHOL UPON HYDROLYSIS. METHYL ALCOHOL CAUSES OPTIC NEUROPATHY, METABOLIC ACIDOSIS AND RESPIRATORY DEPRESSION. SIGNS AND SYMPTOMS OF OVEREXPOSURE INCLUDE HEADACHE, BLURRED VISION, CONSTRICITED VISUAL FIELDS, SHORTNESS OF BREATH, DIZZINESS AND VERTIGO. INGESTION OF METHYL ALCOHOL MAY LEAD TO BLINDNESS OR DEATH.

INGESTION:
DO NOT INDUCE VOMITING; SEEK IMMEDIATE MEDICAL ATTENTION.

SECTION V FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:
EXCLUDE AIR. FIRES INVOLVING THIS PRODUCT MAY BE CONTROLLED BY REGULAR FOAM. CARBON DIOXIDE, DRY CHEMICALS OR WATER SPRAY. WATER MAY BE USED TO REDUCE THE RATE OF BURNING AND FOR COOLING PURPOSES. AVOID SPRAYING WATER DIRECTLY INTO STORAGE CONTAINERS DUE TO DANGER OF BOIL OVER.

COMBUSTIBLE LIQUID - CAN FORM COMBUSTIBLE MIXTURES AT TEMPERATURES AT OR ABOVE THE FLASH POINT. STATIC DISCHARGE - MATERIAL CAN ACCUMULATE STATIC CHARGES WHICH CAN CAUSE AN INCENDIARY ELECTRICAL DISCHARGE. “EMPTY” CONTAINERS RETAIN PRODUCT RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS, DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. EMPTY DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNCHED AND PROMPTLY RETURNED TO A DRUM RECONDITIONER, OR PROPERLY DISPOSED OF.

GENERAL HAZARD:

Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL and ACGIH TLV: TWA 1000 ppm.
**SECTION VI  ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

**LAND SPILL:** Eliminate sources of ignition; prevent additional discharge of material; if possible to do so without hazard. For small spills, implement cleanup procedures. For large spills, implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting notify the national response center. Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. Consult an expert on disposal of recovered material and ensure conformity to EPA, federal, state, and local disposal regulations.

**WATER SPILL:** Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters. Consult an expert on disposal of recovered material and ensure conformity to EPA, federal, state, and local disposal regulations.

**SECTION VII  HANDLING AND STORAGE**

**PRECAUTIONARY STATEMENTS:** Personnel should avoid inhalation of vapors. Personal contact with the product should be avoided. Should contact be made, remove saturated apparel and flush affected body areas with water. Clothing must be washed and dried before reuse. Containers of this material may be hazardous when emptied since emptied containers retain product residue (vapor, liquid and/or solid). All hazard precautions given in this data sheet must be observed.

**FIRE FIGHTING:** Water may be unsuitable as an extinguishing medium but helpful in keeping adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes. Personnel should avoid inhalation of vapors. Other handling and storage requirements: Store and use in well ventilated area, equivalent to fresh air. Keep container tightly closed. Do not store with incompatible materials. Store in accordance with federal, state, and local regulations. Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material. Keep away from high temperatures, open flames, sparks, sources of ignition, etc. Use with explosion proof equipment is highly advisable.

**SECTION VIII  EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION REQUIREMENTS:** Local mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weighted tlv ranges. If local ventilation proves inadequate to maintain safe vapor concentrations, supplemental local exhaust may be required. Other special precautions such as respiratory masks or environmental fire containment devices may be required in extreme cases.

**SECTION IX  PHYSICAL / CHEMICAL CHARACTERISTICS**

**SECTION X  STABILITY AND REACTIVITY**

**SECTION XI  TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>METHOD</th>
<th>ACUTE TOXICITY ESTIMATE:</th>
<th>LD50 (RAT):</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULATION METHOD</td>
<td>&gt;5000 mg/kg</td>
<td>&gt;5110 mg/kg</td>
</tr>
</tbody>
</table>

**RESPIRATORY (SPECIFY IN DETAIL):** The use of respiratory protection depends on vapor concentration above the time weighted tlv. Use of osha approved cartridge respirator or gas mask or air-pack. Chemical cartridge respirator: half mask organic vapor cartridge. Full face organic vapor cartridge if eye protection is needed.

**GLOVES:** The use of impermeable gloves is advised to prevent skin irritation in sensitive individuals. Impermeable gloves, (chemical resistant), such as neoprene, latex or pva.

**OTHER CLOTHING AND EQUIPMENT:** To prevent body contact, impermeable clothing and boots are recommended. Impermeable aprons and helmets (head cover) are recommended when working with this product. The availability of eye washes and safety showers in work areas is recommended.

**SECTION IX PHYSICAL / CHEMICAL CHARACTERISTICS**

**BOILING POINT:** (760mmHg) 665 C / 149 F (Octyltriethoxysilane)

**MELTING/FREEZING POINT:** N/D

**VAPOR DENSITY (AIR=1):** HEAVIER THAN AIR

**% VOLATILES BY VOL:** N/D

**SPECIFIC GRAVITY (H2O=1):** N/D

**FLASH POINT:** (TEST METHOD) 128°F / 53°C (Closed Cup)

**AUTOIGNITION TEMP:** N/D

**FLAMMABLE LIMITS IN AIR, % BY VOL:** N/D

**CONDITIONS CONTRIBUTING TO INSTABILITY:** This product is stable.

**INCOMPATIBILITY:** Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form (ethyl alcohol) by hydrolysis. Thermal decomposition in the presence of air may yield carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

**HAZARDOUS DECOMPOSITION PRODUCTS:** N/A will not occur.

**CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:** N/A will not occur.

**ACUTE ORAL TOXICITY**

**ACUTE DERMAL TOXICITY**

**ACUTE SKIN CORROSION / IRRITATION**

**SEROUS EYE DEGAMAGE / EYE IRRITATION**

**RESPIRATORY OR SKIN SENSITIZATION**

**SKIN SENSITIZATION:** May cause an allergic skin reaction

**RESPIRATORY SENSITIZATION:** Not classified based on available information.
| GERM CELL MUTAGENICITY | NOT CLASSIFIED BASED ON AVAILABLE TEST INFORMATION | |
| GENOTOXICITY CITY IN VITRO | TEST TYPE: MUTAGENICITY IN VITRO MAMMALIAN CYTOGENETIC TEST | RESULT: NEGATIVE |
| | REMARKS: BASED ON TEST DATA |

| CARCINOGENICITY | NOT CLASSIFIED BASED ON AVAILABLE INFORMATION |
| IRC | 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 IRC. |
| 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 KNOWN OR ANTICIPATED CARCINOGEN BY NTP. |

| REPRODUCTIVE TOXICITY | NOT CLASSIFIED BASED ON AVAILABLE INFORMATION |
| REPRODUCTIVE 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 |

| STOT - SINGEL EXPOSURE | NOT CLASSIFIED BASED ON AVAILABLE INFORMATION |
| ROUTES OF EXPOSURE: INGESTION |

| STOS - REPEATED EXPOSURE | NOT CLASSIFIED BASED ON AVAILABLE INFORMATION |
| REPEATED DOES TOXICITY | SPECIES: RAT |
| APPLICATION ROUTE: INGESTION |
| REMARKS: BASED ON TEST DATA |

**SECTION XII ECOLOGICAL INFORMATION**

| ECOTOXICITY | TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES |
| | EC50 (DAPHNIA SP): >0.049 mg/L |
| | EXPOSURE TIME: 48 HRS. |
| | METHOD: OECD TEST GUIDELINE 202 |

| ECOTOXICITY | TOXICITY TO ALGAE |
| | ErC50 (PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE)): >0.13 mg/L |
| | EXPOSURE TIME: 72 HRS. |
| | METHOD: OECD TEST GUIDELINE 201 |

| PERSISTENCE AND DEGRADABILITY | BIODEGRADABILITY |
| | RESULT: NOT READILY BIODEGRADABLE |

| MOBILITY IN SOIL | NO DATA AVAILABLE |
| OTHER AVERSE EFFECTS | NO DATA AVAILABLE |

**SECTION XIII DISPOSAL CONSIDERATIONS**

AQUATIC TOXICITY (E.G. 96 HR. TLM): DO NOT DISCHARGE THIS PRODUCT INTO PUBLIC WATERS OR WATERWAYS UNLESS AUTHORIZED BY A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA).

WASTE DISPOSAL METHOD: IF POSSIBLE, PUMP TO CONTROLLED CONTAINMENT AREA. ABSORB ON CLAY OR SAND. DISPOSE OF IN COMPLIANCE WITH EPA, FEDERAL, STATE, AND LOCAL REGULATIONS. TREATMENT, TRANSPORTATION AND DISPOSAL MUST BE IN COMPLIANCE WITH EPA FEDERAL, STATE, AND LOCAL REGULATIONS UNDER THE RESOURCES CONSERVATION AND RECOVERY ACT (RCRA, 40 CFR 261). TYPICALLY CONTROLLED BURNING, INCINERATION OR APPROVED LAND FILL SITES ARE AVAILABLE.

**SECTION XIV TRANSPORTATION INFORMATION**

<table>
<thead>
<tr>
<th>Governing Body</th>
<th>Mode</th>
<th>UN Number</th>
<th>Proper Shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Quantity Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>GROUND (NON-BULK)</td>
<td>NON-REGULATED</td>
<td>NON-REGULATED</td>
<td>NON-REGULATED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA</td>
<td>AIR</td>
<td>1993</td>
<td>FLAMMABLE LIQUID N.O.S. (ETHANOLOXYCYTLISILANE) (DIETHYL ETHANOLAMINE)</td>
<td>3</td>
<td>III</td>
<td>Passenger Aircraft – 60L Cargo Aircraft – 220L</td>
</tr>
<tr>
<td>IMDG</td>
<td>OCEAN</td>
<td>1993</td>
<td>FLAMMABLE LIQUID N.O.S. (ETHANOLOXYCYTLISILANE) (DIETHYL ETHANOLAMINE)</td>
<td>3</td>
<td>III</td>
<td></td>
</tr>
</tbody>
</table>

MARINE POLLUTANT: THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE MARINE POLLUTANTS TABLE (HMT 172.101 APPENDIX B)
SECTION XV REGULATORY INFORMATION

**TSCA:** The solvent portion of this product is listed on the TSCA inventory as a UVCB (unknown, variable composition or biological) chemical at CAS registry number 2943-75-41 (diethyl ethanolamine).

**CERCLA:** If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling 1-800-424-8802 or 202-426-2675.

**100 POUNDS (DIETHYTHETHANOLAMINE)**

**SARA TITLE III:** Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Re-Authorization Act, this product is classified into the following hazard categories:
- Fire, Acute Health

**ADDITIONAL REGULATORY CONCERNS:** (Federal, FDA, USDA, CPSC, State, Other)
- Federal / FDA / USDA:
  - Marine Pollutants: No. This product does not contain a material on the Marine Pollutants Table (HMT 172.101 Appendix B).
  - CERCLA / RQ: 100 Pounds (Diethyl Ethanolamine)
  - This product contains a material on the RQ Table (HMT 172.101 Appendix A): Diethyl Ethanolamine

**TSCA:** Is this product, or all its ingredients, being certified for inclusion on the Toxic Substances Control Act inventory of chemical substances? Yes

SECTION XVI OTHER INFORMATION

**PREPARED BY:** Darryl Manuel / President

**COMPANY:** Vexcon Chemicals, Inc.

**ADDRESS:** 7240 State Rd., Phila., PA 19135 USA

THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM SOURCES BELIEVED TO BE RELIABLE. VEXCON PROVIDES NO WARRANTIES, EXPRESSED OR IMPLIED, AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN.

**HMIS HAZARD RATINGS:**

<table>
<thead>
<tr>
<th>VERTI-VEX PENSEAL CT</th>
<th>NPCA-HMIS</th>
<th>NFPA 704</th>
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</thead>
<tbody>
<tr>
<td>HEALTH</td>
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</tr>
<tr>
<td>FLAMMABILITY</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**KEY**
- 4 -- Severe
- 3 -- Serious
- 2 -- Moderate
- 1 -- Slight
- 0 -- Minimal