HAZARD RATING
4=EXTREME
3=HIGH
2=MODERATE
1=SLIGHT
0=INSIGNIFICANT

HEALTH
1

FLAMMABILITY
2

REACTIVITY
0

SAFETY DATA SHEET
VEXCON NO. PS115
CERTI-VEX PENSEAL 244-100%

SECTION I - GENERAL INFORMATION

PRODUCT IDENTIFICATION:
CERTI-VEX PENSEAL 244 100%

VOC CONTENT: <250 GR/L OR < 2.09 #/GAL

CATEGORY: WATERPROOFING CONCRETE/MASONRY SEALER

COMMON NAME: SILANE WATERPROOFER

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: AUGUST 1997

UPDATED: MAY 2020

PREPARED BY: Darryl F. Manuel, President

SECTION II - HAZARD IDENTIFICATION

CLASSIFICATION OF MIXTURE
SKIN/CORROSION/IRRITATION - CATEGORY 2
SERIOUS EYE DAMAGE/EYE IRRITATION – CATEGORY 2B
SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE (NARCOTIC EFFECTS) – CATEGORY 2

SIGNAL WORD: WARNING

HAZARD STATEMENT: CAUSES SKIN IRRITATION CAUSES SERIOUS EYE IRRITATION.

PRECAUTIONARY STATEMENTS: USE ONLY WITH ADEQUATE VENTILATION. IF SWALLOWED, DO NOT INDUCE VOMITING. USE OF SOLVENT RESISTANT GLOVES, GOGGLES AND OTHER PROTECTIVE EQUIPMENT IS ADVISED WHEN HANDLING THIS PRODUCT. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. USE OF RESPIRATORS IS ADVISED WHEN USING PRODUCT IN CONFINED AREA.

SECTION III HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENTS</th>
<th>CAS NO.</th>
<th>%</th>
<th>HAZARD DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCTYLTRIETHOXYSiLANE</td>
<td>2943-75-1</td>
<td>90-100%</td>
<td>NONE</td>
</tr>
<tr>
<td>RELATED SILOXANES AND SILOANE ESTERS</td>
<td>NONE</td>
<td>1-10</td>
<td>NOT ESTABLISHED</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>
</tr>
</tbody>
</table>

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 IV FIRST AID MEASURES

HEALTH HAZARD DATA HAZARD CLASSIFICATION

Basis for Classification Source

ROUTES OF EXPOSURE:

INHALATION: THIS PRODUCT MAY MAY IRRITATE RESPIRATORY PASSAGES VERY SLIGHTLY. SILANE AND ETHANOL COMPONENTS.

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 IRRITATION DEVELOPS AND PERSISTS.

INHALATION:

MOVE TO LOCATION FREE FROM VAPORS. 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, CONSTRICTED VISUAL FIELDS, SHORTNESS OF BREATH, DIZZINESS AND VERTIGO. INGESTION OF METHYL ALCOHOL MAY LEAD TO BLINDNESS OR DEATH. 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.

**GENERAL HAZARD:**
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 EXPLOSION OR LINGERING FLAME. "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 BUNGED AND PROMPTLY RETURNED TO A DRUM RECONDITIONER, OR PROPERLY DISPOSED OF.

**STATIC ACCUMULATION HAZARD:**
USE PROPER GROUNDING.

**UNUSUAL FIRE AND EXPLOSION HAZARD:**
FLAMMABLE VAPORS MAY ACCUMULATE IN THE CONTAINER HEADSPACE ON FORMATION OF HYDROLYSIS BY-PRODUCTS. IF STORAGE CONTAINERS ARE EXPOSED TO EXCESSIVE HEAT, OVER PRESSURIZATION OF THE CONTAINERS CAN RESULT. VAPOR IS HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR THROUGH VENTILATION SYSTEM CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. KEEP WORK AREAS FREE OF HOT METAL SURFACES AND OTHER SOURCES OF IGNITION.

**SPECIAL FIRE FIGHTING PROCEDURES**
THE USE OF SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE OPERATED IN PRESSURE- Demand or other Positive pressure mode should be provided for fire fighters in buildings or confined areas where this product is stored. STORAGE CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY IN ORDER TO PREVENT PRESSURE BUILD UP. USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL. ISOLATE "FUEL" SOURCE FROM FIRE. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

**SECTION VI ACCIDENTAL RELEASE MEASURES**

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

**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 SPILL, IMPLEMENT CLEAN UP 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, WATER COURSES, 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. CONTAINERS SHOULD BE KEPT 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 CONTAINMENT DEVICES MAY BE REQUIRED IN EXTREME CASES.

**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.

**EYES:** CHEMICAL GOGGLES AND/OR FACE SHIELD ARE RECOMMENDED TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY.

**GLOVES:** THE USE OF IMPERMEABLE GLOVES IS ADVISED TO PREVENT SKIN IRRITATION IN SENSITIVE INDIVIDUALS. IMPERVIOUS GLOVES, (CHEMICAL RESISTANT) SUCH AS NEOPRENE, LATEX OR PVA.

**OTHER CLOTHING AND EQUIPMENT:** TO PREVENT BODY CONTACT, IMPERVIOUS CLOTHING AND BOOTS ARE RECOMMENDED. IMPERVIOUS 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)  >65 °C  /  149 F
(Octyltriethoxysilane)

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

**VAPOR PRESSURE:** N/D

**VAPOR DENSITY:** HEAVIER THAN AIR

**SPECIFIC GRAVITY:** N/D

**EVAPORATION RATE:** (BuAc=1)
N/D

**PH (AS IS):** N/D

**PH (1% SOLN):** N/A

**APPEARANCE AND ODOR:** COLORLESS TO PALE YELLOW LIQUID WITH SLIGHT ALCOHOL ODOR

**FLASH POINT:** 149°F / 65°C (Closed Cup)

**AUTIGNITION TEMP:** N/D

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

**SECTION X STABILITY AND REACTIVITY**

**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.

**HAZARDOUS DECOMPOSITION PRODUCTS:**
THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD CARBON OXIDES AND TRACES OF INCOMPLETELY BURNED CARBON COMPOUNDS. SILICON DIOXIDE. FORMALDEHYDE.

**CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:**
N/A WILL NOT OCCUR

**SECTION VII HANDLING AND STORAGE**

**PRECAUTIONARY STATEMENTS:** PERSONNEL SHOULD AVOID INHALATION OF VAPORS. PERSONAL CONTACT WITH THE PRODUCT SHOULD BE AVOIDED. CONTAINERS SHOULD BE KEPT AWAY FROM HIGH TEMPERATURES, OPEN FLAMES, SPARKS, SOURCES OF IGNITION, ETC. USE WITH EXPLOSION PROOF EQUIPMENT IS HIGHLY ADVISABLE.

**OTHER HANDLING AND STORAGE REQUIREMENTS:** STORE AND USE IN WELL VENTILATED AREA, EQUIVALENT TO FRESH AIR. KEEP CONTAINER TIGHTLY CLOSED.
SECTION XI TOXICOLOGICAL INFORMATION

| COMPONENT TOXICOLOGY INFORMATION | PROLONGED OVEREXPOSURE TO ETHANOL HAS CAUSED HUMAN BIRTH DEFECTS. FINDINGS FROM A COMBINED REPEATED – DOSE TOXICITY STUDY WITH REPRODUCTIVE/DEVELOPMENTAL SCREENING ENDPOINTS ON OCTYLTRIETHOXYSILANE HAVE SHOWN NEUROLOGICAL EFFECTS IN RATS AT HIGH DOSES (1000 mg/kg). PARALYSIS AND PARESIS OF THE LIMBS, AND DEMENTIALIZATION OF THE BRAIN, SPINAL CORD, SCIENTIFIC AND TUBIAL NERVES WAS NOTED IN SOME ANIMALS. |

SECTION XIII DISPOSAL CONSIDERATIONS

| 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 LANDFILL SITES ARE AVAILABLE. |

SECTION XIV TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Government Body</th>
<th>Mode</th>
<th>UN Number</th>
<th>Proper Shipping Name</th>
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<tbody>
<tr>
<td>DOT</td>
<td>GROUND (NON BULK)</td>
<td>NON-REGULATED</td>
<td>NON-REGULATED</td>
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<td>IATA</td>
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<td>NON-REGULATED</td>
<td>NON-REGULATED</td>
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<td>IMDG</td>
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<td>NON-REGULATED</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>MARINE POLLUTANT</td>
<td>THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE MARINE POLLUTANTS TABLE (HMT 172.101 APPENDIX B)</td>
<td></td>
<td></td>
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</tbody>
</table>

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 2943-75-1 (OCTYLTRIETHOXYSILANE). |
| 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 202-426-2875. NO REPORTABLE SPILL QUANTITY (RQ) HAS BEEN ESTABLISHED FOR THIS PRODUCT (OCTYLTRIETHOXYSILANE). |
| 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: ACUTE, CHRONIC, FIRE |
| ADDITIONAL REGULATORY CONCERNS: (FEDERAL, FDA, USDA, CPSC, STATE, OTHER) FEDERAL: FDA: USDA: CALIFORNIA: WARNING: WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. CERCLA / RQ: NO REPORTABLE SPILL QUANTITY (RQ) HAS BEEN ESTABLISHED FOR THIS PRODUCT (OCTYLTRIETHOXYSILANE). |
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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.

HMS HAZARD RATINGS:

<table>
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<tr>
<th>CERTI-VEX PENSEAL 244-100%</th>
<th>NPCA-HMS</th>
<th>NFPA 704</th>
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<tr>
<td>KEY</td>
<td>4 -- SEVERE</td>
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<tr>
<td>HEALTH</td>
<td>1 1</td>
<td>2 MODERATE</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>2 2</td>
<td>1 SLIGHT</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0 0</td>
<td>0 MINIMAL</td>
</tr>
</tbody>
</table>