

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

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>2</b>
<b>REACTIVITY</b>	<b>0</b>

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

**GENERAL INFORMATION**

**PRODUCT IDENTIFICATION:**  
**CERTI-VEX® PENSEAL 244-100%**  
**VOC CONTENT:** <250 GRAMS/LITER OR <2.09 #/GAL.  
**CATEGORY:** WATER PROOFING SEALER (OTC 250 g/L)  
**COMMON NAME:** SILANE WATER PROOFER  
**DOT SHIPPING NAME:**  
 UN ID NUMBER / SHIPPING NAME / HAZARD CLASS / PKG GROUP  
 IN CONTAINERS LESS THAN 119 GALS:  
**(NON-REGULATED)**  
 IN CONTAINERS GREATER THAN 119 GALS:  
**UN 1993, COMBUSTIBLE LIQUID, N.O.S. (ETHANOL / ALKOXYSILANE), 3, III**  
**FOR LIMITED QUANTITY AIR & OCEAN SHIPMENT:**  
**UN 1993, COMBUSTIBLE LIQUID, N.O.S. (ETHANOL / ALKOXYSILANE), 3, III**  
 ORM-D: NOT REGULATED FOR QUANTITIES LESS THAN 119 GALLONS / 450 LITERS  
**HEALTH AND SAFETY: COMBUSTIBLE LIQUID:** 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 I**

**MANUFACTURER:** VEXCON CHEMICALS, INC.  
**ADDRESS:** 7240 STATE RD., PHILA., PA 19135 USA  
**EMERGENCY NO:** 1-800-858-2828 (PolySat)  
**TELEPHONE NO:** 1-215-332-7709 (Vexcon)  
**CHEMTREC NO:** 1-800-424-9300 (CHEMTREC)  
**PREPARED:** AUGUST 1997  
**UPDATED:** MAY 2011  
**PREPARED BY:** DARRYL F. MANUEL, PRESIDENT

**SECTION II HAZARDOUS INGREDIENTS**

MATERIAL OR COMPONENTS	CAS NO.	%	HAZARD DATA	UN#
OCTYLTRITHOXYSILANE	2943-75-1	90-100%	NONE	1993
RELATED SILOXANES AND SILANE ESTERS	NONE	1-10	NOT ESTABLISHED	N/A
ETHYL ALCOHOL	64-17-5	<1%	OSHA PEL 1000 ppm TWA ACGIH TLV 1000 ppm TWA	

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 III PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b> (760mmHg) >65 C / 149 F (Octyltriethoxysilane)	<b>MELTING/FREEZING POINT:</b> N/D
<b>VAPOR PRESSURE:</b> N/D	<b>VAPOR DENSITY (AIR=1):</b> HEAVIER THAN AIR
<b>SOLUBILITY IN H2O % BY WT:</b> N/D	<b>% VOLATILES BY VOL:</b> N/D
<b>EVAPORATION RATE (BuAc=1):</b> N/D	<b>SPECIFIC GRAVITY (H2O=1)</b> 0.875
<b>pH (AS IS):</b> N/D	<b>pH (1% SOLN):</b> N/A
<b>APPEARANCE AND ODOR:</b>	COLORLESS TO PALE YELLOW LIQUID WITH SLIGHT ALCOHOL ODOR

**SECTION IV FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b> (TEST METHOD)	<b>149°F / 65°C (Closed Cup)</b>
<b>AUTOIGNITION TEMP:</b>	N/D
<b>FLAMMABLE LIMITS IN AIR, % BY VOL:</b>	N/D
<b>EXTINGUISHING MEDIA:</b>	EXCLUDE AIR. FIRES INVOLVING THIS PRODUCT MAY BE CONTROLLED BY <b>REGULAR FOAM, CARBON DIOXIDE, DRY CHEMICALS OR WATER SPRAY.</b> 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.
<b>GENERAL HAZARD:</b>	<b>COMBUSTIBLE LIQUID</b> - CAN FORM COMBUSTIBLE MIXTURES AT TEMPERATURES AT OR ABOVE THE FLASH POINT. <b>STATIC DISCHARGE</b> - MATERIAL CAN ACCUMULATE STATIC CHARGES WHICH CAN CAUSE AN INCENDIARY ELECTRICAL DISCHARGE. <b>"EMPTY" CONTAINERS</b> 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.
<b>ELECTRO-STATIC ACCUMULATION HAZARD:</b>	<b>USE PROPER GROUNDING</b>
<b>UNUSUAL FIRE AND EXPLOSION HAZARD:</b>	<b>FLAMMABLE VAPORS MAY ACCUMULATE IN THE CONTAINER HEADSPACE ON FORMATION OF HYDROLYSIS BY-PRODUCTS.</b> IF STORAGE CONTAINERS ARE EXPOSED TO EXCESSIVE HEAT, <b>OVER PRESSURIZATION</b> OF THE CONTAINERS CAN RESULT. <b>VAPOR IS HEAVIER THAN AIR</b> AND MAY TRAVEL ALONG THE GROUND OR THROUGH VENTILATION SYSTEM CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. KEEP WORK AREAS <b>FREE OF HOT METAL</b> SURFACES AND OTHER SOURCES OF IGNITION.
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	THE USE OF <b>SELF-CONTAINED BREATHING APPARATUS</b> 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" SUPPLY FROM FIRE. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

**SECTION V REACTIVITY DATA**

<b>CONDITIONS CONTRIBUTING TO INSTABILITY:</b>	THIS PRODUCT IS STABLE.
<b>INCOMPATIBILITY:</b>	OXIDIZING MATERIAL CAN CAUSE A REACTION. WATER, MOISTURE, OR HUMID AIR CAN CAUSE HAZARDOUS VAPORS TO FORM (ETHYL ALCOHOL) BY HYDROLYSIS.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD CARBON OXIDES AND TRACES OF INCOMPLETELY BURNED CARBON COMPOUNDS. SILICON DIOXIDE. FORMALDEHYDE.
<b>CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:</b>	N/A WILL NOT OCCUR

## SECTION VI HEALTH HAZARD INFORMATION

### HEALTH HAZARD DATA HAZARD CLASSIFICATION BASIS FOR CLASSIFICATION SOURCE

#### ROUTES OF EXPOSURE:

<b>INHALATION:</b>	THIS PRODUCT MAY CAUSE IRRITATE RESPIRATORY PASSAGES VERY SLIGHTLY. SILANE AND ETHANOL COMPONENTS.
<b>SKIN CONTACT:</b>	THIS PRODUCT MAY CAUSE MODERATE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. SILANE AND ETHANOL COMPONENTS.
<b>SKIN ABSORPTION:</b>	THIS PRODUCT MAY CAUSE MODERATE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. SILANE AND ETHANOL COMPONENTS.
<b>EYE CONTACT:</b>	THIS PRODUCT MAY BE AN EYE IRRITANT. DIRECT CONTACT MAY CAUSE MILD IRRITATION. SILANE AND ETHANOL COMPONENTS.
<b>INGESTION / INHALATION</b>	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.
<b>EFFECTS OF OVEREXPOSURE:</b>	<b>TLV 1000 ppm ETHYL ALCOHOL</b> NO KNOWN APPLICABLE INFORMATION. LIQUIDS MODERATELY IRRITATING ON SKIN AND EYES.
<b>ACUTE OVEREXPOSURE:</b>	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:

<b>EYES:</b>	FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK IMMEDIATE MEDICAL ATTENTION.
<b>SKIN:</b>	WASH WITH SOAP AND LARGE QUANTITIES OF WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF SKIN IRRITATION DEVELOPS AND PERSISTS.
<b>INHALATION:</b>	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, CONSTRICTED VISUAL FIELDS, SHORTNESS OF BREATH, DIZZINESS AND VERTIGO. INGESTION OF METHYL ALCOHOL MAY LEAD TO BLINDNESS OR DEATH.
<b>INGESTION:</b>	DO NOT INDUCE VOMITING; SEEK IMMEDIATE MEDICAL ATTENTION.

### SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE AND SPILL CONTROL

**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).

#### 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, 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 DISPENSANTS 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.

**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 VIII CONTROL MEASURES

**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.

<b>RESPIRATORY (SPECIFY IN DETAIL):</b> 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.
<b>EYES:</b> CHEMICAL GOGGLES AND/OR FACE SHIELD ARE RECOMMENDED TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY.
<b>GLOVES:</b> THE USE OF IMPERMEABLE GLOVES IS ADVISED TO PREVENT SKIN IRRITATION IN SENSITIVE INDIVIDUALS. IMPERVIOUS GLOVES, (CHEMICAL RESISTANT) SUCH AS NEOPRENE, LATEX OR PVA.
<b>OTHER CLOTHING AND EQUIPMENT:</b> 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 SPECIAL PRECAUTIONS

<b>PRECAUTIONARY STATEMENTS:</b> 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.
<b>FIRE FIGHTING:</b> 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.
<b>OTHER HANDLING AND STORAGE REQUIREMENTS:</b> 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.

### HMIS HAZARD RATINGS:

THIS INFORMATION IS FOR PEOPLE TRAINED IN: NATIONAL PAINT AND COATINGS ASSOCIATIONS (NPCA) HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 704) IDENTIFICATION OF FIRE HAZARDS OF MATERIALS			<b>KEY</b> 4 -- SEVERE
<b>VEXCON CERTI-VEX PENSEAL 244-100%</b>	<b>NPCA-HMIS</b>	<b>NFPA 704</b>	3 -- SERIOUS
<b>HEALTH</b>	<b>1</b>	<b>1</b>	2 -- MODERATE
<b>FLAMMABILITY</b>	<b>2</b>	<b>2</b>	1 -- SLIGHT
<b>REACTIVITY</b>	<b>0</b>	<b>0</b>	0 -- MINIMAL

### SECTION X REGULATORY INFORMATION

<b>TSCA:</b> 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 (OCTYLTRITHOXYSILANE)
<b>CERCLA:</b> 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.
<b>NO REPORTABLE SPILL QUANTITY (RQ) HAS BEEN ESTABLISHED FOR THIS PRODUCT (OCTYLTRITHOXYSILANE).</b>
<b>SARA TITLE III:</b> 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: <b>ACUTE, CHRONIC, FIRE</b>
<b>ADDITIONAL REGULATORY CONCERNS:</b> (FEDERAL, FDA, USDA, CPSC, STATE, OTHER) FEDERAL:
FDA:
USDA:
<b>CALIFORNIA:</b> WARNING: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.
<b>CERCLA / RQ:</b> NONE ESTABLISHED
<b>TSCA:</b> IS THIS PRODUCT, OR ALL ITS INGREDIENTS, BEING CERTIFIED FOR INCLUSION ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY OF CHEMICAL SUBSTANCES? <b>YES</b>

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