

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

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

MATERIAL SAFETY DATA SHEET  
 VEXCON NO. CS100  
**VEXCON STARSEAL 309**

**GENERAL INFORMATION**

**PRODUCT IDENTIFICATION:**

**VEXCON STARSEAL 309**

VOC CONTENT: <300 GRAMS/LITER OR <2.50 #/GAL.

CATEGORY: CONCRETE CURING COMPOUND  
 (OTC Limit 350 g/L)

COMMON NAME: STYRENE VINYL TOLUENE ACRYLATE EMULSION

**DOT SHIPPING NAME:**

UN ID NUMBER / SHIPPING NAME / HAZARD CLASS / PKG GROUP  
 IN CONTAINERS LESS THAN AND GREATER THAN 119 GALS  
 IN ALL MODES OF TRANSPORTATION:

**VEXCON STARSEAL 309  
 (NON-REGULATED)**

**HEALTH AND SAFETY:** THIS PRODUCT IS AN ORGANIC LIQUID AND WATER EMULSION. PER NFPA 30 THIS MIXTURE WITH A FLASH POINT GREATER THAN 200 F IS A CLASS III B COMBUSTIBLE LIQUID. ALL PRECAUTIONS PROVIDED ARE FOR THE ORGANIC LIQUID PORTION OF WHICH THIS PRODUCT MAY CONTAIN AS LITTLE AS 5%. 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. **KEEP FROM FREEZING.**

**SECTION I**

<b>MANUFACTURER:</b>	VEXCON CHEMICALS, INC.
<b>ADDRESS:</b>	7240 STATE RD., PHILA., PA 19135 USA
<b>EMERGENCY NO:</b>	1-800-858-2828 (POLYSAT)
<b>TELEPHONE NO:</b>	1-215-332-7709 (VEXCON)
<b>CHEMTREC NO:</b>	1-800-424-9300 (CCN#23822)
<b>PREPARED:</b>	SEPTEMBER 1997
<b>UPDATED:</b>	SEPTEMBER 2011
<b>PREPARED BY:</b>	DARRYL F. MANUEL, PRESIDENT

**SECTION II HAZARDOUS INGREDIENTS**

MATERIAL OR COMPONENTS	CAS NO.	%	HAZARD DATA	UN#
STYRENE ACRYLATE POLYMER	25036-16-2	15-30%	ND	1993
STODDARD SOLVENT / MINERAL SPIRITS	8052-41-3	5-10%	ACGIH TLV: 100 ppm, 525 mg/m3 (TWA) OSHA PEL: 500 ppm, 2900 mg/m3 (TWA) NIOSH REL: 350 mg/m3 (TWA) COMBUSTIBLE	1268
PERFORMANCE ADDITIVES	N/D	N/D	N/A	N/A
WATER	N/A	BAL	NONE	NONE

**SECTION III PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>BOILING POINT: (760mmHg)</b> 100°C / 212°F	<b>MELTING/FREEZING POINT:</b> -40°C .. / -40°F (Stoddard Solvent)
<b>VAPOR PRESSURE:</b> 5 mmHg@68°F/25°C (Stoddard solvent)	<b>VAPOR DENSITY (AIR=1):</b> 4.8 (Stoddard solvent)
<b>SOLUBILITY IN H2O % BY WT:</b> MISCIBLE	<b>% VOLATILES BY VOL:</b> 70-80%

<b>EVAPORATION RATE (BuAc=1):</b> SLOW 0.1 (Stoddard Solvent)	<b>SPECIFIC GRAVITY (H2O=1)</b> 0.97
<b>pH (AS IS):</b> 7-8 TYPICAL	<b>pH (1% SOLN):</b> N/A
<b>APPEARANCE AND ODOR:</b> MILKY WHITE EMULSION WITH AROMATIC ODOR (MAY CONTAIN FUGITIVE DYE)	

**SECTION IV FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b> (TEST METHOD)	<b>&gt;100°C / &gt;212°F (TCC)</b>
<b>AUTOIGNITION TEMP:</b>	232°C / 450°F (STODDARD SOLVENT)
<b>FLAMMABLE LIMITS IN AIR, % BY VOL:</b>	LOWER: 0.8% UPPER: 6.0% (STODDARD SOLVENT)
<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>
<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>	<u>USE PROPER GROUNDING</u>
<b>UNUSUAL FIRE AND EXPLOSION HAZARD:</b>	<b>WATER MIX, NO UNUSUAL HAZARDS</b> <b>PRODUCT WILL BURN IF TEMPERATURE EXCEEDS BOILING POINT.</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>	NONE

**SECTION V REACTIVITY DATA**

<b>CONDITIONS CONTRIBUTING TO INSTABILITY:</b>	THIS PRODUCT IS STABLE.
<b>INCOMPATIBILITY:</b>	THIS PRODUCT IS INCOMPATIBLE WITH STRONG OXIDIZING AGENTS, STRONG ACIDS OR BASES, AND SELECTED AMINES.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE, AND UNIDENTIFIED ORGANICS.
<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**

**ALL INFORMATION GIVEN IS FOR STODDARD SOLVENT COMPONENT.**

**ROUTES OF EXPOSURE:**

<b>INHALATION:</b>	THIS PRODUCT MAY CREATE BREATHING DIFFICULTIES. DIZZINESS, LIGHTHEADEDNESS WHEN WORKING IN AREAS WITH HIGH VAPOR CONCENTRATION. STODDARD SOLVENT COMPONENT.
<b>SKIN CONTACT:</b>	THIS PRODUCT MAY CAUSE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. STODDARD SOLVENT COMPONENT.
<b>SKIN ABSORPTION:</b>	THIS PRODUCT MAY CAUSE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT. STODDARD SOLVENT COMPONENT.
<b>EYE CONTACT:</b>	THIS PRODUCT MAY BE AN EYE IRRITANT. STODDARD SOLVENT COMPONENT.
<b>INGESTION / INHALATION</b>	CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING. 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.
<b>EFFECTS OF OVEREXPOSURE:</b>	<b>TLV 50 ppm MINERAL SPIRITS</b> ANESTHESIA, HEADACHE, NAUSEA, DIZZINESS. LIQUIDS MODERATELY IRRITATING ON SKIN AND EYES.
<b>ACUTE OVEREXPOSURE:</b>	ANESTHESIA, HEADACHE, NAUSEA, DIZZINESS: MODERATE IRRITATION BY LIQUID TO SKIN AND EYES. PROLONGED CONTACT ON THE SKIN WILL CLAY AND DEFEAT THE SKIN POSSIBLY CAUSING DERMATITIS.
<b>NOTE ABOUT MINERAL SPIRITS OR STODDARD SOLVENT:</b>	NOTE: THE THRESHOLD LIMIT VALUE (TLV) OF 100 ppm VAPOR IN AIR HAS BEEN ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS FOR STODDARD SOLVENT AND IS THUS APPLICABLE TO MINERAL SPIRITS. IN A STUDY OF EXXON CORP. MEDICAL RESEARCH WITH LABORATORY ANIMALS (RATS) EXPOSED TO VAPORS IN AIR OF A SOLVENT SIMILAR TO MINERAL SPIRITS, KIDNEY DAMAGE WAS NOTED IN MALE RATS AT THIS CONCENTRATION. THE RECENT STUDY SUGGESTS THAT THIS OCCUPATIONAL EXPOSURE LIMIT MAY HAVE TO BE LOWERED FOR THIS PRODUCT. WORK IS CONTINUING TO VALIDATE THESE FINDINGS AND WHETHER A REVISED OCCUPATIONAL EXPOSURE LIMIT SHOULD BE RECOMMENDED FOR MINERAL SPIRITS.

**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. 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.
<b>INGESTION:</b>	DO NOT INDUCE VOMITING; SEEK IMMEDIATE MEDICAL ATTENTION.

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

<b>AQUATIC TOXICITY (E.G. 96 HR. TLM):</b> 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).
<b>STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:</b> ELIMINATE SOURCES OF IGNITION (FLARES, FLAMES, PILOT LIGHTS, ELECTRICAL SPARKS). 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. DIKE SPILL AREA WITH SAND OR EARTH TO CONTAIN SPILLED LIQUID AND PREVENT SPREADING. DO NOT USE COMBUSTIBLE MATERIALS SUCH AS SAWDUST. PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID CAN BE TAKEN UP ON SAND, EARTH, FLOOR ABSORBENT, OR WITH ANOTHER SUITABLE ABSORBENT MATERIAL AND SHOVELLED INTO CONTAINERS. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL AND ENSURE CONFORMITY TO EPA, FEDERAL, STATE, AND LOCAL DISPOSAL REGULATIONS.
<b>WASTE DISPOSAL METHOD:</b> 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**

<b>VENTILATION REQUIREMENTS:</b> 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.
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<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.

<b>HMS HAZARD RATINGS:</b> 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>
<b>STARSEAL 309</b>	<b>NPCA-HMIS</b>	<b>NFPA 704</b>	4 -- SEVERE
<b>HEALTH</b>	<b>1</b>	<b>1</b>	3 -- SERIOUS
<b>FLAMMABILITY</b>	<b>1</b>	<b>1</b>	2 -- MODERATE
<b>REACTIVITY</b>	<b>0</b>	<b>0</b>	1 -- SLIGHT
			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 8052-41-3 (STODDARD SOLVENT).
<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 (STODDARD SOLVENT)</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: DELAYED HEALTH, FIRE
<b>ADDITIONAL REGULATORY CONCERNS:</b> (FEDERAL, FDA, USDA, CPSC, STATE, OTHER)
FEDERAL / FDA / USDA:
<b>MARINE POLLUTANTS:</b> NO. THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE MARINE POLLUTANTS TABLE (HMT 172.101 Appendix B).
<b>CERCLA / RQ:</b> <b>NONE ESTABLISHED.</b> THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE RQ TABLE (HMT 172.101 Appendix A).
<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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