

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>

SAFETY DATA SHEET  
VEXCON NO. RP101  
**STARSEAL ENVIO BOND**

**SECTION I - GENERAL INFORMATION**

<b>PRODUCT IDENTIFICATION:</b> <b>STARSEAL ENVIO BOND</b>	
<b>VOC CONTENT:</b>	0 GR/LITER OR 0#/GAL
<b>CATEGORY:</b>	<b>NOT REGULATED</b>
<b>COMMON NAME:</b>	<b>AQUEOUR ACRYLATE EMULSION</b>
<b>MANUFACTURER:</b>	<b>VEXCON CHEMICALS, INC</b>
<b>ADDRESS</b>	7240 STATE RD, PHILADELPHIA, PA 19135
<b>EMERGENCY NO:</b>	800.858.2828 (PolySat Inc)
<b>TELEPHONE NO:</b>	215.332.7709 (Vexcon)
<b>CHEMTREC NO:</b>	800.424.9300 (CCN# 23822)
<b>PREPARED:</b>	MAY 1996
<b>UPDATED:</b>	JUNE 2014
<b>PREPARED BY:</b>	DARRY F. MANUEL , PRESIDENT

**SECTION II - HAZARD IDENTIFICATION**

<p><b>DOT SHIPPING NAME:</b> UN ID NUMBER / SHIPPING NAME / HAZARD CLASS / PKG GROUP IN CONTAINERS LESS THAN AND GREATER THAN 119 GALS: IN ALL MODES OF TRANSPORTATION <b>(NON-REGULATED)</b></p> <p><b>HEALTH AND SAFETY:</b> THIS PRODUCT IS AN ACRYLIC LIQUID WMULSION. 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.<b>KEEP FROM FREEZING.</b></p>	
	

**SECTION III HAZARDOUS INGREDIENTS**

MATERIAL OR COMPONENTS	CAS NO.	%	HAZARD DATA	UN#
MODIFIED ACRYLATE POLYMER EMULSION	25085-34-1	30-50%	ORAL LD50 5.0 g/Kg	NONE
WATER	N/A	BAL	N/A	NONE

**SECTION IV FIRST AID MEASURES**

**HEALTH HAZARD DATA HAZARD CLASSIFICATION  
BASIS FOR CLASSIFICATION SOURCE**

<b>ROUTES OF EXPOSURE:</b>	
<b>INHALATION:</b>	VAPOR INHALATION CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA OR HEADACHE.
<b>SKIN CONTACT:</b>	THIS PRODUCT MAY CAUSE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT.
<b>SKIN ABSORPTION:</b>	THIS PRODUCT MAY CAUSE SKIN IRRITATION UPON PROLONGED OR REPEATED CONTACT.
<b>EYE CONTACT:</b>	THIS PRODUCT CAN CAUSE SEVERE EYE IRRITATION.
<b>INGESTION / INHALATION</b>	CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING.
<b>EFFECTS OF OVEREXPOSURE:</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 DEFAIT THE SKIN POSSIBLY CAUSING DERMATITIS.
<b>EMERGENCY AND FIRST AID PROCEDURES:</b>	
<b>EYES:</b>	FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.
<b>SKIN:</b>	WASH WITH SOAP AND PLENTY 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>	SEEK MEDICAL ATTENTION.

**SECTION V FIREFIGHTING MEASURES**

<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>"EMPTY" CONTAINERS</b> RETAIN PRODUCT RESIDUE (LIQUID AND/OR VAPOR). 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>NOT AN ELECTRO-STATIC HAZARD</u>

<b>UNUSUAL FIRE AND EXPLOSION HAZARD:</b>	WATER MIX: NO UNUSUAL HAZARDS.
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	PRODUCT WILL BURN IF TEMPERATURE EXCEEDS BOILING POINT. POLYMER FILM CAN BURN.

### SECTION VI ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** 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 TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID CAN BE TAKEN UP ON SAND, EARTH, FLOOR ABSORBENT, OR WITH ANOTHER SUITABLE ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

### 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.

**OTHER HANDLING AND STORAGE REQUIREMENTS:** STORE AND USE IN WELL VENTILATED AREA, EQUIVALENT TO FRESH AIR. KEEP CONTAINERS COOL, DRY, AND AWAY FROM SOURCES OF IGNITION. 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 CONTAINMENT DEVICES MAY BE REQUIRED IN EXTREME CASES.

**RESPIRATORY (SPECIFY IN DETAIL):** 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

<b>BOILING POINT: (760mmHg)</b> 101°C / 215°F	<b>MELTING/FREEZING POINT:</b> 0°C / 32°F (WATER)
<b>VAPOR PRESSURE:</b> 17.5 mmHg@68°F/20°C (WATER)	<b>VAPOR DENSITY (AIR=1):</b> = WATER
<b>SOLUBILITY IN H2O % BY WT:</b> 100% SOLUBLE	<b>% VOLATILES BY VOL:</b> 70-85% WATER
<b>EVAPORATION RATE (BuAc=1):</b> 0.3 SLOW (WATER)	<b>SPECIFIC GRAVITY (H2O=1)</b> 1.029

<b>pH (AS IS):</b> 8-9 TYPICAL	<b>pH (1% SOLN):</b> 7-8 TYPICAL
<b>APPEARANCE AND ODOR:</b>	MILKY WHITE EMULSION
<b>FLASH POINT: (TEST METHOD)</b>	<b>NONE (WATER)</b>
<b>AUTOIGNITION TEMP:</b>	NONE (WATER)
<b>FLAMMABLE LIMITS IN AIR, % BY VOL:</b>	NONE (WATER)

### SECTION X STABILITY AND REACTIVITY

<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 XI TOXICOLOGICAL INFORMATION

<b>GENERAL INFORMATION</b>	DATA DERIVED FOR THE PRODUCT AS A WHOLE ARE OF HIGHER PRIORITY THAN DATA FOR SINGLE INGREDIENTS. TOXICOLOGICAL TESTING HAS BEEN CONDUCTED WITH SIMILAR PRODUCTS
<b>ACUTE TOXICITY</b>	BASED ON THE AVAILABLE DATA ACUTE TOXIC EFFECTS ARE NOT EXPECTED AFTR SINGLE ORAL EXPOSURE. ROUTE OF EXPOSURE: ORAL RESULT/EFFECT: LD50: >2000 mg/kg SPECIES: RAT SOURCE: CONCLUSION BY ANALOGY OECD 423
<b>SKIN CORROSION</b>	BASED ON AVAILABLE DATA A CLINICALLY RELEVANT SKIN IRRITATION HAZARD IS NOT EXPECTED RESULT/EFFECT: NOT IRRITATION SPECIES: RABBIT SOURCE: CONCLUSION BY ANALOGY OECD 404
<b>SERIOUS EYE DAMAGE/ EYE IRRITATION</b>	BASED ON AVAILABLE DATA A CLINICALLY RELEVANT EYE IRRITATION HAZARD IS NOT EXPECTED RESULT/ EFFECT: NOT IRRITATION SPECIES: RABBIT CONCLUSION BY ANALOGY OECD 405
<b>RESPIRATORY OR SKIN SENSITIZATION</b>	FOR THIS ENDPOINT NO TOXICOLOGICAL TEST DATA IS AVAILABLE FOR THE WHOLE PRODUCT BASED ON THE PROVEN LOW SENSITIZATION INDUCTION THRESHOLD IN HUMANS, MIXTURES CONTAINING ≥15 ppm ARE CLASSIFIED AS SKIN SENSITIZING IN EUROPE.
<b>GERM CELL MUTAGENICITY</b>	BASED ON KNOWN DATA A SIGNIFICANT MUTAGENIC POTENTIAL MAY BE EXCLUDED. RESULT/EFFECTS: NEGATIVE SPECIES: MUTATINON ASSAY (IN VITRO) BACTERIAL CELLS CONCLUSION BY ANALOGY OECD 471
<b>CARCINOGENICITY</b>	FOR THIS ENDPOINT NO TOXICOLOGICAL TEST DATA IS AVAILABLE FOR THE WHOLE PRODUCT
<b>REPRODUCTIVE TOXICITY</b>	FOR THIS ENDPOINT NO TOXICOLOGICAL TEST DATA IS AVAILABLE FOR THE WHOLE PRODUCT
<b>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</b>	FOR THIS ENDPOINT NO TOXICOLOGICAL TEST DATA IS AVAILABLE FOR THE WHOLE PRODUCT.
<b>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)</b>	FOR THIS ENDPOINT NO TOXICOLOGICAL TEST DATA IS AVAILABLE FOR THE WHOLE PRODUCT.
<b>ASPIRATION</b>	BASED ON THE PHYSICAL-CHEMICAL

<b>HAZARD</b>	PROPERTIES OF THE PRODUCT NO ASPIRATION HAZARD MUST BE EXPECTED.
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**SECTION XII ECOLOGICAL INFORMATION**

<b>TOXICITY</b>	NO EXPECTED DAMAGING EFFECTS TO AQUATIC ORGANISMS. ACCORDING TO CURRENT KNOWLEDGE ADVERSE EFFECTS ON WATER PURIFICATION PLANTS ARE NOT EXPECTED. LC50:>100 mg/l
	SPECIES: RAINBOW TROUT (ONCORHYNCHUS MYKISS) (96HR) CONCLUSION BY ANALOGY OECD 203
	EC10: 1000 mg/l SLUDGE (0.5H) CONCLUSIO BY ANALOGY
<b>PERSISTENCE AND DEGRADABILITY</b>	POLYMER COMPONENT: NOT READILY BIODEGRADABLE. ELIMINATION BY ADSORPTION TO ACTIVATED SLUDGE. SEPARATION BY FLOXXULATION IS POSSIBLE.
<b>BIOACCUMULATIVE POTENTIAL</b>	NO ADVERSE EFFECTS EXPECTED.
<b>MOBILITY IN SOIL</b>	NO ADVERSE EFFECTS EXPECTED.
<b>OTHER ADVERSE EFFECTS</b>	NONE KNOWN
<b>ADDITIONAL INFORMATION</b>	THE ECOTOXICOLOGICLA RESULTS PROVIDED WERE OBTAINED FROM TEST WITH SIMILAR PRODUCTS.

**SECTION XIII DISPOSAL CONSIDERATIONS**

<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>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 XIV TRANSPORTATION INFORMATION**

Governing Body	Mode	UN Number	Proper Shipping Name	Hazard Class	Packing Group
DOT	GROUND	NON REGULATED	NON REGULATE D	NON REGULATE D	NA
IATA	AIR	NON REGULATED	NON REGULATE D	NON REGULATE D	NA
IMDG	OCEAN	NON REGULATED	NON REGULATE D	NON REGULATE D	NA
<b>MARINE POLLUTANT:</b>	THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE MARINE POLLUTANTS TABLE (HMT 172.101 APPENDIX B)				

**SECTION XV 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
<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.</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>CALIFORNIA PROP 65:</b>
CERCLA / RQ: <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>

**SECTION XVI OTHER INFORMATION**

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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.	

<b>HMIS HAZARD RATINGS:</b>			<b>KEY</b> 4 -- SEVERE
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>STARSEAL ENVIO BOND</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>1</b>	<b>1</b>	1 -- SLIGHT
<b>REACTIVITY</b>	<b>0</b>	<b>0</b>	0 -- MINIMAL