400 N. DEKORA WOODS BLVD. SAUKVILLE, WI 53080 (262) 268-6815 EMERGENCY PHONE: CHEM-TEL (800) 255-3924 (US, Canada, Puerto Rico & US Virgin Islands) (813) 248-0585 Collect - Outside North America DATE: 03-08-2014

MATERIAL SAFETY DATA SHEET

ZONIX

PAGE 1 OF 4

SECTION 1. CHEMICAL IDENTIFICATION PRODUCT NAME: ZONIX

MANUFACTURER'S NAME: JENEIL BIOSURFACTANT CO., LLC 400 N. DEKORA WOODS BLVD. SAUKVILLE, WI 53080

SECTION 2. HAZARDS IDENTIFICATION GHS CLASSIFICATION SKIN IRRITATION (CATEGORY 3)

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS PICTOGRAM



SIGNAL WORD:

WARNING

HAZARD STATEMENT(S) H316 CAUSES MILD SKIN IRRITATION.

PRECAUTIONARY STATEMENT(S)

NONE

CAS NUMBER: 147858-26-2 SECTION 4. FIRST-AID MEASURES IN CASE OF CONTACT

IMMEDIATELY WASH SKIN WITH SOAP AND WATER.

CONTAMINATION OF THE EYES

TREAT WITH IMMEDIATE AND PROLONGED IRRIGATION OF COPIOUS AMOUNTS OF WATER.

IF INHALED

REMOVE TO FRESH AIR.

IF SWALLOWED

WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

400 N. DEKORA WOODS BLVD. SAUKVILLE, WI 53080 (262) 268-6815 EMERGENCY PHONE: CHEM-TEL (800) 255-3924 (US, Canada, Puerto Rico & US Virgin Islands) (813) 248-0585 Collect - Outside North America DATE: 03-08-2014

MATERIAL SAFETY DATA SHEET

ZONIX

PAGE 2 OF 4

SECTION 5. FIRE FIGHTING MEASURES EXTINGUISHING MEDIA WATER, CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SECTION 6. ACCIDENTAL RELEASE MEASURES ABSORB ON SAND OR ON A COMMERCIALLY AVAILABLE CLAY ADSORBENT AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. HANDLING AND STORAGE KEEP PRODUCT AWAY FROM HEAT TO MAINTAIN QUALITY. STORE IN A COOL, DRY PLACE. MINIMIZE PRODUCT EXPOSURE TO DIRECT SUNLIGHT IN HOT CLIMATES.

OTHER PRECAUTIONS: STORE PRODUCT IN AREA BETWEEN 8° - 50° C. STORE IN TIGHTLY SEALED CONTAINERS.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION ALTHOUGH ZONIX IS NOT EXPECTED TO POSE ANY SPECIFIC HEALTH HAZARD, THE FOLLOWING PRECAUTIONS ARE RECOMMENDED DUE TO POSSIBLE IRRITATION FROM THE BIOLOGICAL DERIVATIVES CONTAINED IN THE PRODUCT. INDIVIDUAL DERMAL AND RESPIRATORY SENSITIVITIES TO ZONIX WILL VARY.

RESPIRATORY PROTECTION: NONE REQUIRED.

VENTILATION: HANDLE PRODUCT IN NORMAL, WELL VENTILATED AREA.

PERSONAL PROTECTIVE EQUIPMENT: TAKE PROTECTIVE MEASURES TO AVOID EYE AND SKIN CONTACT.

HYGIENIC PRACTICES:

AVOID PROLONGED CONTACT WITH SKIN, BREATHING MIST, AND DO NOT TAKE INTERNALLY. WASH THOROUGHLY WITH SOAP AND WATER AFTER SKIN CONTACT. SKIN CREAM MAY BE USED TO REDUCE POSSIBLE IRRITATION. IF TAKEN INTERNALLY, DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. DRINK ONE GLASS OF WATER. CONTACT PHYSICIAN IMMEDIATELY.

SECTION 9. PHYSICAL AND CHEMICAL F	PROPERTIES
APPEARANCE:	LIGHT AMBER SOLUTION
SPECIFIC GRAVITY @ 25° C:	1.02 - 1.07

400 N. DEKORA WOODS BLVD. SAUKVILLE, WI 53080 (262) 268-6815 EMERGENCY PHONE: CHEM-TEL (800) 255-3924 (US, Canada, Puerto Rico & US Virgin Islands) (813) 248-0585 Collect - Outside North America DATE: 03-08-2014

MATERIAL SAFETY DATA SHEET

ZONIX

PAGE 3 OF 4

BOILING POINT:
VAPOR PRESSURE @ 20°C:
VAPOR DENSITY:
SOLUBILITY IN WATER:
PERCENT VOLATILE:
EVAPORATION RATE (ETHER=1):

100° C NOT ESTABLISHED NOT ESTABLISHED SOLUBLE AT NEUTRAL PH NOT VOLATILE NOT ESTABLISHED

SECTION 10. STABILITY AND REACTIVITY STABILITY:

STABLE

CONDITIONS TO AVOID:

ROUTE OF EXPOSURE:

INCOMPATIBLE WITH:

AVOID STRONG OXIDIZING AGENTS

EXCESSIVE HEAT OR FREEZING

HAZARDOUS DECOMPOSITION PRODUCTS:

INSIGNIFICANT. MOSTLY STEAM, TRACE AMOUNTS OF CO $_2$ AND CO. PRODUCT IS NOT AN OXYGEN DONOR.

SECTION 11. TOXICOLOGICAL INFORMATION

THRESHOLD LIMIT VALUE (TLV): PERMISSIBLE EXPOSURE LIMIT (PEL): SARA TITLE III:

25 PPM TWA, SKIN 25 PPM TWA, SKIN NOT LISTED AS REPORTABLE SUBSTANCE NO REPORTABLE QUANTITY (RQ) LIMIT EYE, SKIN CONTACT, INHALATION, INGESTION

HEALTH HAZARD FROM ACUTE EXPOSURE:

IN 2 - 5% SOLUTION, CAN BE HARMFUL IF SWALLOWED. INGESTION CAN CAUSE VOMITING, HEADACHE AND OTHER HARMFUL PROBLEMS. CAN BE IRRITATING TO SKIN AND EYES. SKIN CONTACT CAN CAUSE SLIGHT REDNESS. EYE CONTACT CAN CAUSE MODERATE TO HIGH IRRITATION. INHALATION CAN CAUSE NOSE, THROAT, AND RESPIRATORY TRACT IRRITATION.

HEALTH HAZARD FROM CHRONIC EXPOSURE:

PROLONGED OR REPEATED EXPOSURE CAN CAUSE DRYING, DEFATTING, AND DERMATITIS OF SKIN. ZONIX IS NOT LISTED AS A CARCINOGEN BY NTP, OSHA, OR IARC.

SECTION 12. ECOLOGICAL INFORMATION DATA NOT YET AVAILABLE.

SECTION 13. DISPOSAL CONSIDERATIONS OBSERVE ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL ENVIRONMENTAL REGULATIONS.

400 N. DEKORA WOODS BLVD. SAUKVILLE, WI 53080 (262) 268-6815 EMERGENCY PHONE: CHEM-TEL (800) 255-3924 (US, Canada, Puerto Rico & US Virgin Islands) (813) 248-0585 Collect - Outside North America DATE: 03-08-2014

MATERIAL SAFETY DATA SHEET

ZONIX

PAGE 4 OF 4

SECTION 14. TRANSPORT INFORMATION NOT REGULATED

SECTION 15. REGULATORY INFORMATION NTP, OSHA, AND IARC DO NOT LIST THIS PRODUCT AS CARCINOGENIC TO HUMANS.

UNUSED PRODUCT IS NOT LISTED BY EPA AS HAZARDOUS WASTE (40CR PART 261).

ZONIX IS NOT LISTED ON CALIFORNIA'S PROP. 65 TOXIC SUBSTANCE LIST.

ZONIX IS LISTED ON EPA'S CHEMICAL INVENTORY (PL94-469); HOWEVER, IT IS <u>NOT</u> ON EPA'S CORR (CHEMICALS OF REGULATORY RULES) LIST, WHICH CONTAINS THOSE MATERIALS WHICH POSE A HEALTH OR ENVIRONMENTAL RISK.

SECTION 16. OTHER INFORMATION THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. JENEIL BIOSURFACTANT CO., LLC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.