WUXIZYME RCL  
WUXI SYDER BIO-PRODUCTS CO. LTD., 
NO. 30 HUAXIA MIDDLE RD., ECONOMIC AND 
DEVELOPMENT ZONE, XISHAN DISTRICT, WUXI CITY, CHINA. 
TEL: 0086-0510-88200828/82699968

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 CHEMICAL PRODUCT  WUXIZYME RCL

1.2 PREPARED BY  ENVIRONMENTAL & REGULATORY AFFAIRS DEPARTMENT

1.3 PREPARATION DATE  3/20/2007

1.4 CHEMICAL FORMULA  N.AV

1.5 MOLECULAR WEIGHT  N.AV

1.6 CHEMICAL FAMILY  ENZYME PROTEIN

1.7 MATERIAL USE  REFER TO TECHNICAL LITERATURE

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>CHEMICAL NAME</th>
<th>%</th>
<th>EINECS #</th>
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</table>
2.1 HAZARD SYMBOLS
   NONE LISTED

2.2 RISK PHRASES
   NONE LISTED

3. HAZARDS IDENTIFICATION

   EMERGENCY OVERVIEW

   APPEARANCE: NOT AVAILABLE
   CAUTION! MAY CAUSE SKIN IRRITATION. MAY CAUSE EYE IRRITATION. THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED.

   TARGET ORGANS: NONE

   POTENTIAL HEALTH EFFECTS

   EYE MAY CAUSE EYE IRRITATION

   SKIN MAY CAUSE SKIN IRRITATION

   INGESTION THE TOXICOLOGICAL PROPERTIES OF THIS SUBSTANCE HAS NOT BEEN FULLY INVESTIGATED. THIS IS A HUMAN SOURCE

   INHALATION THE TOXICOLOGICAL PROPERTIES OF THIS SUBSTANCE HAS NOT BEEN FULLY INVESTIGATED.

   CHRONIC NO INFORMATION FOUND.

4. FIRST AID MEASURES

4.1 EYES FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. GET MEDICAL AID.

4.2 SKIN GET MEDICAL AID. FLUSH SKIN WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

4.3 INGESTION IF VICTIM IS CONSCIOUS AND ALERT, GIVE 2-4 CUPFULS OF MILK OR WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL AID.

4.4 INHALATION REMOVE FROM EXPOSURE TO FRESH AIR IMMEDIATELY. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF
BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL AID.

4.5 FOR PHYSICIAN TREAT SYMPTOMATICALLY AND

5. FIRE FIGHTING MEASURES

GENERAL INFORMATION AS IN ANY FIRE, WEAR A SELF-CONTAINED BREATHING APPARATUS IN PRESSURE-DEMAND, MSHA/NIOSH (APPROVED OR EQUIVALENT), AND FULL PROTECTIVE GEAR

5.1 EXTINGUISHING MEDIA FOR SMALL FIRES, USE WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE OR CHEMICAL FOAM

5.2 AUTOIGNITION TEMPERATURES NOT AVAILABLE

5.3 FLASH POINT NOT AVAILABLE

5.4 EXPLOSION LIMITS, LOWER NOT AVAILABLE

5.5 EXPLOSION LIMITS, UPPER NOT AVAILABLE

5.6 NFPA RATING (ESTIMATED)

5.7 HEALTH 1; FLAMMABILITY: 0; INSTABILITY: 0

6. ACCIDENTAL RELEASE MEASURES

6.1 GENERAL INFORMATION USE PROPER PERSONAL PROTECTIVE EQUIPMENT AS INDICATED IN SECTION 8

6.2 SPILLS/LEAKS VACUUM OR SWEEP UP MATERIAL AND PLACE INTO A SUITABLE DISPOSAL CONTAINER. AVOID GENERATING DUSTY CONDITIONS

7. HANDLING AND STORAGE

7.1 HANDLING USE WITH ADEQUATE VENTILATION. AVOID CONTACT WITH SKIN AND EYES. AVOID INGESTION AND INHALATION.

7.2 STORAGE STORE IN A COOL, DRY PLACE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS USE ADEQUATE VENTILATION TO KEEP AIRBORNE CONCENTRATIONS LOW.
### CHEMICAL NAME

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA – FINAL ELS</th>
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</thead>
<tbody>
<tr>
<td>WUXIZYME RCL</td>
<td>NONELISTED</td>
<td>NONE LISTED</td>
<td>NONE LISTED</td>
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</table>

#### 8.2 OSHA VACATED PELS

8.3 WUXIZYME RCL

NO OSHA VACATED PELS ARE LISTED FOR THIS CHEMICAL.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES**

WEAR APPROPRIATE PROTECTIVE EYEGLASSES OR CHEMICAL SAFETY GOGGLES AS DESCRIBED BY OSHA'S EYE AND FACE PROTECTION REGULATIONS IN 29 CFR 1910.133 OR EUROPEAN STANDARD EN166

**SKIN**

WEAR APPROPRIATE GLOVES TO PREVENT SKIN EXPOSURE

**CLOTHING**

WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT SKIN EXPOSURE

**RESPIRATORS**

FOLLOW THE OSHA RESPIRATOR REGULATIONS FOUND IN 29 CFR 1910.134 OR EUROPEAN STANDARD EN 149. ALWAYS USE A NIOSH OR EUROPEAN STANDARD EN 149 APPROVED RESPIRATOR WHEN NECESSARY.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1 PHYSICAL STATE**

LIQUID

**9.2 COLOR**

COFFEE COLOR LIQUID

**9.3 ODOR**

NO PECULIAR ODOR

**9.4 PH**

NOT AVAILABLE

**9.5 VAPOR PRESSURE**

NOT APPLICABLE

**9.6 VAPOR DENSITY**

NOT APPLICABLE

**9.7 EVAPORATION RATE**

NOT APPLICABLE

**9.8 VISCOSITY**

NOT APPLICABLE

**9.9 BOILING POINT**

NOT APPLICABLE

**9.10 FREEZING/MELTING POINT**

NOT APPLICABLE
9.11 DECOMPOSITION TEMPERATURE  NOT APPLICABLE
9.12 SOLUBILITY IN WATER  SOLUBLE IN ANY RATE
9.13 SPECIFIC GRAVITY/DENSITY  1.2G/ML
9.14 MOLECULAR FORMULA  PROTEIN
9.15 MOLECULAR WEIGHT  NOT APPLICABLE

10. STABILITY AND REACTIVITY

10.1 CHEMICAL STABILITY  STABLE UNDER NORMAL TEMPERATURES AND PRESSURES
10.2 CONDITIONS TO AVOID  NONE REPORTED
10.3 INCOMPATIBILITIES WITH OTHER MATERIALS  NONE REPORTED
10.4 HAZARDOUS DECOMPOSITION PRODUCTS  NONE
10.5 HAZARDOUS POLYMERIZATION  HAS NOT BEEN REPORTED

11. TOXICOLOGICAL INFORMATION

RTECS#:  
n  CAS# 9012-54-8: BU7432500
LD50/LC50:  
n  CAS# 9012-54-8: ORAL, MOUSE: LD50 = >15 GM/KG; ORAL, RAT: LD50 = >7500 MG/KG.

CARCINOGENICITY: WUXIZYME RCL

pNOT LISTED BY ACGIH, IARC, NIOSH, NTP, OR OSHA.
EPIDEMIOLOGY  NO DATA AVAILABLE
TERATOGENICITY  NO DATA AVAILABLE
REPRODUCTIVE EFFECTS  NO DATA AVAILABLE
NEUROTOXICITY  NO DATA AVAILABLE
MUTAGENICITY  NO DATA AVAILABLE
OTHER STUDIES  NO DATA AVAILABLE

12. DISPOSAL CONSIDERATIONS

CHEMICAL WASTE GENERATORS MUST DETERMINE WHETHER A DISCARDED CHEMICAL IS CLASSIFIED AS A HAZARDOUS WASTE. US EPA GUIDELINES FOR THE CLASSIFICATION DETERMINATION ARE LISTED IN 40CFR PARTS 261.3. ADDITIONALLY, WASTE GENERATORS MUST CONSULT STATE AND LOCAL HAZARDOUS WASTE REGULATIONS TO ENSURE COMPLETE AND ACCURATE CLASSIFICATION.
13. **TRANSPORT INFORMATION**

**US DOT**
- No information available

**CANADIAN TDG**
- No information available.

14. **REGULATORY INFORMATION**

**US FEDERAL TSCA**
- CAS# 9012-54-8 is listed on the TSCA inventory.

**HEALTH & SAFETY REPORTING LIST**
- None of the chemicals are on the health & safety reporting list.

**CHEMICAL TEST RULES**
- None of the chemicals in this product are under a chemical test rule. Section 12B.
- None of the chemicals are listed under TSCA Section 12B.

**TSCA SIGNIFICANT NEW USE RULE.**
- None of the chemicals in this material have a SNUR under TSCA.

**SARA CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS**
- None of the chemicals in this material have an RQ. SARA.

**SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES.**
- None of the chemicals in this product have a TPQ. Section 313.

**CLEAN AIR ACT:**
- No chemicals are reportable under Section 313. Clean Air Act:
  - This material does not contain any hazardous air pollutants.
  - This material does not contain any class 1 ozone depleters.
  - This material does not contain any class 2 ozone depleters.

**CLEAN WATER ACT:**
- None of the chemicals in this product are listed as hazardous substances under the CWA.
- None of the chemicals in this product are listed as priority pollutants under the CWA.
- None of the chemicals in this product are listed as toxic pollutants under the CWA.

**OSHA:**
- None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
- WUXIZYME RCL is not present on state lists from CA, PA, MN, MA, FL, or NJ. California no significant risk level: None of the chemicals in this product are listed.
EUROPEAN/INTERNATIONAL REGULATIONS.
EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES.

- HAZARD SYMBOLS: NOT AVAILABLE.
- RISK PHRASES.
- SAFETY PHRASES.
- S 24/25 AVOID CONTACT WITH SKIN AND EYES. WGK (WATER DANGER/PROTECTION).
- CAS#9012-54-8: 0.

UNITED KINGDOM OCCUPATIONAL EXPOSURE LIMITS. UNITED KINGDOM MAXIMUM EXPOSURE LIMITS.

- NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED ON THE DSL/NDSL LIST.
- WHMIS: NOT AVAILABLE.
- CAS# 9012-54-8 IS NOT LISTED ON CANADA’S INGREDIENT DISCLOSURE LIST.

15. OTHER INFORMATION

MSDS CREATION DATE           FEB 2016

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