1 Identification

- **Product identifier**
  - **Product name:** FetuIn Control Protein
  - **Product Code:** WS0021
  - **CAS Number:** 9014-81-7
  - **EC number:** 232-762-7
- **Application of the substance / the mixture** Research and Development

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** ProZyme, Inc
    3832 Bay Center Place
    HAYWARD, CA 94545
    USA
  - **Issuing Department:** ProZyme Quality Assurance Department
  - **Email:** info@prozyme.com
  - **Fax number:** +1 510 638 6919
  - **Phone number:** +1 510 638 6900
  - **Emergency telephone number:** +1 760 476 3961

2 Hazard(s) identification

- **Classification of the substance or mixture**
  The substance is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void

- **Precautionary statements**
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
  - IF ON SKIN: Wash with plenty of soap and water.
  - Store in a dry place. Store in a closed container.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system**
  - **NFPA ratings (scale 0 - 4)**
    - **Health = 0**
    - **Fire = 0**
    - **Reactivity = 0**

(Contd. on page 2)
Product name: Fetuin Control Protein

- HMIS-ratings (scale 0 - 4)
  - Health = 0
  - Fire = 0
  - Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  9014-81-7 Bovine Fetuin
- Identification number(s)
- EC number: 232-762-7

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective gloves / eye protection / face protection.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections
  - See Section 7 for information on safe handling.

(Contd. of page 1)

(Contd. of page 3)
Product name: Fetuin Control Protein

See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling: Wear protective gloves / eye protection / face protection.
  - Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
  - Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
    - Breathing equipment: Not required.
    - Protection of hands:
      - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
      - Material of gloves
        - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
      - Penetration time of glove material
        - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - Eye protection: Wear eye protection / face protection.

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Powder
      - Color: Beige
    - Odor: Characteristic
    - Odor threshold: Not determined.
  - pH-value: Not applicable.
Product name: Fetuin Control Protein

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Product is not flammable.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
<td>Soluble.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Organic solvents:</td>
<td>0.0 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.0 g/l / 0.00 lb/gl</td>
</tr>
<tr>
<td>Solids content:</td>
<td>100.0 %</td>
</tr>
<tr>
<td>Other information:</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
  - **Possibility of hazardous reactions**: No dangerous reactions known.
  - **Conditions to avoid**: No further relevant information available.
  - **Incompatible materials**: No further relevant information available.
  - **Hazardous decomposition products**: No dangerous decomposition products known.
11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
    - on the skin: May be harmful in contact with skin.
    - on the eye: No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
    - The substance is not subject to classification.

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - Substance is not listed.
  - **NTP (National Toxicology Program)**
    - Substance is not listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - Substance is not listed.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
  - **General notes:**
    - Water hazard class 1 (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
    - **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:** Smaller quantities can be disposed of with household waste.

- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.
**Product name:** Fetuin Control Protein

(Contd. of page 5)

**14 Transport information**

- UN-Number
  - DOT, ADN, IMDG, IATA: not regulated

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: not regulated

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: not regulated
  - Class: not regulated

- Packing group
  - DOT, IMDG, IATA: not regulated

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

- UN "Model Regulation":
  - not regulated

---

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara

  - Section 355 (extremely hazardous substances):
    - Substance is not listed.

  - Section 313 (Specific toxic chemical listings):
    - Substance is not listed.

  - TSCA (Toxic Substances Control Act):
    - Substance is not listed.

  - Proposition 65

  - Chemicals known to cause cancer:
    - Substance is not listed.

  - Chemicals known to cause reproductive toxicity for females:
    - Substance is not listed.

  - Chemicals known to cause reproductive toxicity for males:
    - Substance is not listed.

  - Chemicals known to cause developmental toxicity:
    - Substance is not listed.

(Contd. on page 7)
### Product name: Fetuin Control Protein

<table>
<thead>
<tr>
<th>Carcinogenic categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>· EPA (Environmental Protection Agency)</td>
</tr>
<tr>
<td>· Substance is not listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Substance is not listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Substance is not listed.</td>
</tr>
</tbody>
</table>

- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Precautionary statements**
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
  - IF ON SKIN: Wash with plenty of soap and water.
  - Store in a dry place. Store in a closed container.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment**: A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Trademark** ProZyme is a trademark or registered trademark of ProZyme in the United States and other countries.
- **Supersedes Date**: 29-August-2013
- **Current Revision**: AD