Safety data sheet
according to 1907/2006/EC, Article 31

1 Identification of the substance/mixture and of the company/undertaking

· Product identifier
  · Trade name: Bovine Fetuin Control (E4)
  · Article number: WS0048
  · CAS Number:
    9014-81-7
  · EC number:
    232-762-7

· Relevant identified uses of the substance or mixture and uses advised against
  · 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
  · Further information obtainable from: ProZyme Quality Assurance Department
  · Emergency telephone number: +1 760 476 3961

2 Hazards identification

· Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008
    The substance is not classified according to the CLP regulation.
  · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
  · Information concerning particular hazards for human and environment: Not applicable.

· Label elements

· Labelling according to EU guidelines:
  · Observe the general safety regulations when handling chemicals.
  · The substance is not subject to classification according to EU lists and other sources of literature known to us.

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

3 Composition/information on ingredients

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

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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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: CO2, 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.
  - 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 fire - and explosion protection: 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 facilities: No further data; see item 7.

(Contd. of page 1)
Trade name: Bovine Fetuín Control (E4)

- Control parameters
  - Ingredients with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists valid during the making were used as basis.

- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    The usual precautionary measures are to be adhered to when handling chemicals.
  - Respiratory protection: 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
    - Colour: Beige
    - Odour: Characteristic
    - Odour threshold: Not determined.
  - pH-value: Not applicable.
  - Change in condition
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: Undetermined.
  - Flash point: Not applicable.
  - Flammability (solid, gaseous): Product is not flammable.
  - Ignition temperature:
    - Decomposition temperature: Not determined.
  - Self-igniting: Not determined.
  - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Vapour pressure: Not applicable.
  - Density: Not determined.
  - Relative density: Not determined.
  - Vapour density: Not applicable.
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· Evaporation rate Not applicable.
· Solubility in / Miscibility with water: Soluble.
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
  · Dynamic: Not applicable.
  · Kinematic: Not applicable.
· Solvent content:
  · Organic solvents: 0.0 %
  · VOC (EC): 0.00 %
· Solids content: 100.0 %
· Other information No further relevant information available.

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 Based on available data, the classification criteria are not met.
  · Primary irritant effect:
    · Skin corrosion/irritation May be harmful in contact with skin.
  · Serious eye damage/irritation Based on available data, the classification criteria are not met.
  · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
  · CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  · Germ cell mutagenicity Based on available data, the classification criteria are not met.
  · Carcinogenicity Based on available data, the classification criteria are not met.
  · Reproductive toxicity Based on available data, the classification criteria are not met.
  · STOT-single exposure Based on available data, the classification criteria are not met.
  · STOT-repeated exposure Based on available data, the classification criteria are not met.
  · Aspiration hazard Based on available data, the classification criteria are not met.

12 Ecological information

· Toxicity
  · Aquatic toxicity: No further relevant information available.
  · Persistence and degradability No further relevant information available.

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- Behaviour 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 (German Regulation) (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 packaging:
  - Recommendation: Disposal must be made according to official regulations.

- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

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

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

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

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

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Not applicable.

- Transport in bulk according to Annex II of Marpol 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
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- 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 a registered trademark of ProZyme, Inc., in the United States and other countries.
- Department issuing SDS: ProZyme Quality Assurance Department
- Supersedes Date: 06-March-2015
- Current Version: AC