



SECTION 1: Identification of the substance or mixture and of the supplier

| | |
|--|---|
| GHS Product Identifier | Bovine Type VI Collagen-Lyophilized |
| Other means of identification | N/A |
| Product type | Powder |
| Product code | 1300-02 |
| Chemical formula | Not applicable |
| CAS No | Not applicable |
| SDS No. | 2233594 |
| Relevant Identified uses of the substance or mixture and uses advised against | Not applicable |
| Supplier's details | Southern Biotechnology Associates, Inc. 160 Oxmoor Boulevard Birmingham, Alabama 35209 USA Tel: (205) 945-1774 Fax: (205) 945-8768 Website: www.southernbiotech.com |
| Distributor and Emergency Phone No. | Refer to website for distributor and emergency phone numbers. Tel: (205) 945-1774 |

SECTION 2: Hazards identification

Classification of the substance or mixture

GHS-US classification

| | |
|-----------------------------|------|
| Skin irritation (Cat. 2) | H315 |
| Serious eye damage (Cat. 1) | H318 |

Label elements

GHS-US labeling

Hazard pictograms (GHS-US)

Not a hazardous substance or mixture



Signal word (GHS-US)

Warning

Hazard statements (GHS-US)

H315 – Causes skin irritation
H318 – Causes serious eye damage.

Precautionary statements (GHS-US)

Prevention

P264 – Wash hands, forearms, and exposed areas thoroughly after handling.
P280 – Wear protective gloves/ protective clothing/ eye protection/ face protection
P362 – Take off contaminated clothing and wash before reuse.
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
P310 – Immediately call a POISON CENTER or doctor/ physician.
P332 + P313 – If skin irritation occurs: Get medical advice/ attention.

Response

Storage

Not applicable

Disposal

P501 – Dispose of contents and container in accordance with all local, regional, national, and international regulations.

Other hazards

Unknown acute toxicity (GHS US)

No data available

Full text of H-phrases: see section 16

Rev. 30-Apr-15

SECTION 3: Composition/information on ingredients

| | |
|--|----------------|
| Substance/Mixture | Mixture |
| Other Means of Identification | Not available |
| <u>CAS Number/other identifiers</u> | |
| CAS Number | Not applicable |

| Ingredient Name | Product Identifier | Percentage |
|------------------------|---|-------------------|
| Acetic Acid | (CAS No.) 64-19-7 / [EINECS(EC#)] 232-236-7 | 3% |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8

SECTION 4: First aid measures**Description of first aid measures**

| | |
|--|--|
| First-aid measures general | Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| First-aid measures after eye contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Consult a physician. |
| First-aid measures after inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Consult a physician. |
| First-aid measures after skin contact | Flush contaminated skin with plenty of water and soap. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| First-aid measures after ingestion | Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If necessary, call a poison center. |

Most important symptoms and effects, acute and delayed**Potential acute health effects**

| | |
|--------------|--|
| Eye contact | No known significant effects or critical hazards |
| Inhalation | No known significant effects or critical hazards |
| Skin contact | No known significant effects or critical hazards |
| Ingestion | Harmful if swallowed. |

Over-exposure signs/symptoms

| | |
|--------------|------------------|
| Eye contact | No specific data |
| Inhalation | No specific data |
| Skin contact | No specific data |
| Ingestion | No specific data |

Indication of any immediate medical attention and special treatment needed, if necessary

| | |
|--------------------|---|
| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if large |
|--------------------|---|

| | |
|----------------------------|---|
| | quantities have been ingested or inhaled. |
| Specific treatments | No specific treatment. |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, "alcohol" foam, dry chemical or carbon dioxide..

Unsuitable extinguishing media

None known

Special hazards arising from the substance or mixture

No special hazards determined

Hazardous thermal decomposition products

No specific data

Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures: This product contains a material of biological origin. Use universal precautions during clean up procedures. Avoid breathing (vapor, mist). Use only in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment, see section 8.

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill: As a precautionary measure, treat spilled material with a 1:10 bleach/water solution. Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Comply with applicable waste disposal regulations. .

Large spill: As a precautionary measure, treat spilled material with a 1:10 bleach/water solution. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Reference to other sections

See Section 1 for emergency contact information, Section 13 for waste disposal, and Section 8 for exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling: This product should be handled as though capable of transmitting infectious diseases. Universal precautions should be followed when using this product. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Hygiene measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Technical measures: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Recommended storage temperature: 2 - 8°C

SECTION 8: Exposure controls/personal protection

Control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|-------------|---------|-------|----------------------|-----------|
| Acetic Acid | 64-19-7 | TWA | 25 mg/m ³ | USA NIOSH |
| | | | 25 mg/m ³ | USA OSHA |
| | | STEL | 37 mg/m ³ | USA NIOSH |

Exposure controls

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Environmental exposure controls

Do not let product enter drains.

Personal protective equipment

Protective goggles, gloves



Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Impervious clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Rev. 30-Apr-15

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA Mailing Address: P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • Fax: 205.945.8768

Email: info@southernbiotech.com • Website: www.southernbiotech.com

| | |
|----------------------------------|--|
| Other skin protection | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Eye protection | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |
| Respiratory protection | Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Conditions to avoid | No specific data |
| Incompatible materials | No specific data |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Other information | When using, do not eat, drink, or smoke. Contains material of human origin. |

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | : Powder |
| Color | : White |
| Odor | : Vinegar-like |
| Odor threshold | : Not available |
| pH | : Not available |
| Melting point | : Not available |
| Boiling point | : Not available |
| Flash Point | : Not available |
| Burning time | : Not applicable |
| Burning rate | : Not applicable |
| Evaporation rate | : Not available |
| Flammability (solid, gas) | : Not available |
| Lower and upper explosive (flammable) limits | : Not available |
| Vapor pressure | : Not available |
| Vapor density | : Not available |
| Relative density | : Not available |
| Solubility | : Soluble in the following materials: cold water and hot water. |
| Partition coefficient n-octanol/water | : Not available |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| SADT | : Not available |
| Viscosity | : Not available |

Other information

No additional information available

SECTION 10: Stability and reactivity

| | |
|---|--|
| Reactivity | No specific test data related to reactivity available for this product or its ingredients. This material is hydroscopic. |
| Chemical Stability | The product is stable under recommended storage conditions. |
| Possibility Of Hazardous Reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions To Avoid | No specific data |
| Incompatible Materials | Strong oxidizers (especially chromic acid, sodium peroxide, & nitric acid), strong caustics. |
| Hazardous Decomposition Products | No specific data |

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity No data available

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Teratogenicity: No data available

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Aspiration hazard: No data available

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, and Inhalation.

Potential acute health effects

Eye contact: No known significant effects or critical hazards

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data

Inhalation: No specific data

Skin contact: No specific data

Ingestion: No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Long term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Potential chronic health effects: Not available

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

SECTION 12: Ecological information

Toxicity No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

SECTION 13: Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | DOT Classification | IATA |
|----------------------------|-----------------------|---------------|
| UN number | Not regulated | Not regulated |
| UN proper | - | - |
| Transport hazard class(es) | - | - |
| Packing group | - | - |
| Environmental hazards | No | No |
| Additional information | - | - |

Rev. 30-Apr-15

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768

Email: info@southernbiotech.com • **Website:** www.southernbiotech.com

Special precautions for user: Transport within users premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

| | |
|---|---|
| U.S. Federal regulations | TSCA: All components are listed or exempted. Clean Water Act (CWA) 311: All components are listed or exempted. |
| Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) | Not listed |
| Clean Air Act Section 602 Class I Substances | Not listed |
| Clean Air Act Section 602 Class II Substances | Not listed |
| DEA List I Chemicals (Precursor Chemicals) | Not listed |
| DEA List II Chemicals (Essential Chemicals) | Not listed |

SARA 302/304

Composition/information on ingredients

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

State regulations

| | |
|---------------|---------|
| New Jersey | |
| Acetic Acid | 64-19-7 |
| New York | |
| Acetic Acid | 64-19-7 |
| Massachusetts | |
| Acetic Acid | 64-19-7 |
| Pennsylvania | |
| Acetic Acid | 64-19-7 |
| California | |
| Acetic Acid | 64-19-7 |
| Minnesota | |
| Acetic Acid | 64-19-7 |
| Rhode Island | |
| Acetic Acid | 64-19-7 |

Canada inventory All components are listed or exempted.

International regulations

| | |
|---|--|
| International lists | Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Japan inventory: All components are listed or exempted. Korea inventory: All components are listed or exempted. Malaysia Inventory (EHS Register): All components are listed or exempted. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): All components are listed or exempted. |
| Chemical Weapons Convention List Schedule I | Not listed |
| Chemical Weapons Convention List Schedule II Chemicals | Not listed |
| Chemical Weapons Convention List Schedule III Chemicals | Not listed |

SECTION 16: Other information

Indication of changes : 30-Apr-15
Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H315 – Causes skin irritation
H318 – Causes serious eye damage.
P264 – Wash hands, forearms, and exposed areas thoroughly after handling.
P280 – Wear protective gloves/ protective clothing/ eye protection/ face protection
P362 – Take off contaminated clothing and wash before reuse.
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
P310 – Immediately call a POISON CENTER or doctor/ physician.
P332 + P313 – If skin irritation occurs: Get medical advice/ attention.
P501 – Dispose of contents and container in accordance with all local, regional, national, and international regulations.

NFPA health : 3 - Corrosive or toxic. Avoid skin contact or inhalation
NFPA fire hazard : 0 - Not combustible
NFPA reactivity : 0 - Not reactive when mixed with water

HMIS III Rating

Health : 3- Serious Hazard
Flammability : 0 - Minimal Hazard
Physical : 0 - Minimal Hazard



While SouthernBiotech (d.b.a. Southern Biotechnology Associates, Inc.) believes the information contained herein is valid and accurate, SouthernBiotech makes no warranty or representation as to its validity, accuracy, or currency. SouthernBiotech shall not be liable or otherwise responsible in any way for use of either this information or materials to which it applies. Disposal of Hazardous materials may be subject to local laws or regulations.

SDS US (GHS HazCom) - US Only

Rev. 30-Apr-15