

MATERIAL SAFETY DATA SHEET

Collagen

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Collagen, Hydrolyzed Collagen, Poly-Peptide

IvyLanc™ F, IvyLanc™ S, IvyLanc™ MF, IvyLanc™ 1000, IvyLanc™ II, IvyLanc™ C
IVY-1000S, IVY-1000B, IVY-1200S, IVY-1200B

Chemical Name: Collagen

Chemical Formula: Not available.

Company Name: Joyvo New Material Co., Ltd

Company address: No.35 Dingxing Road, Food Industrial Zone, Yangzhou, Jiangsu, 225000,
P.R.China

Date MSDS Prepared: 2012/06/08

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredient Name	CAS No.	Typical weight %
Collagen	9007-34-5	60-99%

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

4. FIRST AID MEASURES

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream.
Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

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5. FIRE FIGHTING MEASURES
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Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat.

Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Slightly explosive in presence of open flames and sparks.

Non-explosive in presence of shocks.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards:

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

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6. ACCIDENTAL RELEASE MEASURES
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Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local

and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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7. HANDLING AND STORAGE

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Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 30°C (86°F).

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

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9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state and appearance: Solid.(Powdered solid)

Odor: Characteristic.

Taste: Not available.

Molecular Weight: Not available.

Color: Not available.

pH (1% Water solution): Not applicable.

Boiling Point: Not available.
Melting Point: Not available.
Critical Temperature: Not available.
Specific Gravity: Not available.
Vapor Pressure: Not applicable.
Vapor Density: Not available.
Volatility: Not available.
Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: Not available.
Solubility:
Easily soluble in cold water, hot water.

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10. STABILITY AND REACTIVITY
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Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Excess heat, incompatible materials, dust generation
Incompatibility with various substances: Reactive with oxidizing agents.
Corrosivity: Not available.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

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11. TOXICAL INFORMATION
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Routes of Entry: Inhalation. Ingestion.
Toxicity to Animals: Not available.
Chronic Effects on Humans: Not available.
Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects:
Skin: It may cause skin irritation. However, no information regarding skin irritation was found.
Eyes: It may cause eye irritation. However, no information regarding eye irritation was found.
Inhalation: May cause respiratory tract irritation.
Ingestion: It may cause gastrointestinal tract information with nausea and vomiting. It may affect blood (normocytic anemia, change in leukocyte count), metabolism, behavior (ataxia,

convulsions), respiration (respiratory stimulation), and urinary system.

The toxicological properties of this substance have not been fully investigated.

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12. ECOLOGICAL INFORMATION
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Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

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13. DISPOSAL CONSIDERATION
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Waste Disposal:

Waste must be disposed of in accordance with national and local environmental control regulations.

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14. TRANSPORT INFORMATION
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DOT Classification: Not a DOT controlled material.

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

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15. REGULATORY INFORMATION
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National Regulations: TCSA 8(b) inventory: Collagen

Other Regulations: Not available.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

Not available

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0



Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

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16. OTHER INFORMATION

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References: Not available.

Other Special Considerations: Not available.

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