

### **MATERIAL SAFETY DATA SHEET**

Revision Date: 2017-01-01

#### 1. IDENTIFICATION OF THE SUBSTANCE/TREPARATION AND THE COMPANY/UNDERTAKING

Vascular Endothelial Growth Factor

| Product name:                           |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Supplier:                               | BINBO BIOLOGICAL CO.,LTD                  |  |  |  |  |  |
|   | FENGCHENG O                               | NE ROAD                                  |  |  |  |  |
|   | Xi'an                                     |  |  |  |  |  |
|   | China                                     |  |  |  |  |  |
| Tel:                                    | +86-1348821451                            | 1  |  |  |  |  |
|   |   |  |  |  |  |  |
| 2.COM                                   | POSITION/INFORMATION ON INGRE             | DIENTS                                   |  |  |  |  |
|   |   |  |  |  |  |  |
| Components                              | ACGIH Exposure Limits:                    | OSHA Exposure Limits:                    |  |  |  |  |
| Vascular Endothelial Growth Factor      | None                                      | None                                     |  |  |  |  |
|   |   |  |  |  |  |  |
|   | 3.HAZARDS IDENTIFICATION                  |  |  |  |  |  |
| EMERGENCY OVERVIEW: May cau             | se skin irritation and/or dermatitis      |  |  |  |  |  |
| Principle routes of exposure:           | Skin                                      |  |  |  |  |  |
| Inhalation:                             | May cause irritat                         | ion of respiratory tract                 |  |  |  |  |
| Ingestion:                              | May be harmful i                          | f swallowed                              |  |  |  |  |
| Skin contact:                           | May cause allerg                          | jic skin reaction                        |  |  |  |  |
| Eye contact:                            | Avoid contact wit                         | h eyes                                   |  |  |  |  |
| Statements of hazard MAY CAUSE          | ALLERGIC SKIN REACTION.                   |  |  |  |  |  |
| Statements of Spill of Leak Label       | Eliminate all ignition sources. Absorb a  | nd/or contain spill with inert materials |  |  |  |  |
| (e.g., sand, vermiculite). Then place i | n appropriate container. For large spills | s, use water spray to disperse vapors,   |  |  |  |  |
| flush spill area. Prevent runoff from e | ntering waterways or sewers.              |  |  |  |  |  |
|   |   |  |  |  |  |  |
|   |   |  |  |  |  |  |
|   |   |  |  |  |  |  |

**4. FIRST AID MEASURES** 



General advice: In the case of accident or if you fell unwell, seek medical

advice immediately (show the label where possible).

Move to fresh air, call a physician immediately.

Inhalation: Rinse immediately with plenty of water and seek medical

advice

Do not induce vomiting without medical advice.

Skin contact: In the case of contact with eyes, rinse immediately with

**Ingestion:** plenty of water and seek medical advice.

**Eye contact:** No information available

Protection of first - aiders:

Medical conditions aggravated by exposure: None known

#### **5.FIRE-FIGHTING MEASURES**

Suitable extinguishing media: Use dry chemical, CO2, water spray or "alcohol" foam

**Specific hazards:**Burning produces irritant fumes.

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus

pressure-demand, MSHA/NIOSH (approved or equivalent)

Flash point: and full protective gear

Autoignition temperature:Not determinedNFPA ratingNot determined

NFPA Health: 1
NFPA Flammability: 1
NFPA Reactivity: 0

### **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions:

Use personal protective equipment.

Environmental precautions:

Prevent product from entering drains.

Methods for cleaning up: Sweep up and shovel into suitable containers for

disposal

## 7. HANDLING AND STORAGE



Storage:

Room temperature

Handling:

Use only in area provided with appropriate exhaust

ventilation.

Safe handling advice: Wear personal protective equipment.

Incompatible products: Oxidising and spontaneously flammable products

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering measures:** Ensure adequate ventilation.

**Respiratory protection:** Breathing apparatus only if aerosol or dust is formed.

Skin and body protection: Usual safety precautions while handling the product will

provide adequate protection against this potential effect.

Safety glasses with side-shields

**Eye protection:** PVC or other plastic material gloves

Hand protection: Handle in accordance with good industrial hygiene and

**Hygiene measures:** safety practice.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point/range:No Data available at this time.Boiling point/range:No Data available at this time.

Density:No data availableVapor pressure:No data availableEvaporation rate:No data availableVapor density:No data availableSolubility (in water):No data availableFlash point:Not determinedAutoignition temperature:Not determined

#### 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

Polymerization: None under normal processing.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapours

such as carbon oxides.



Materials to avoid: Strong oxidising agents.

Conditions to avoid: Exposure to air or moisture over prolonged periods.

#### 11. TOXICOLOGICAL INFORMATION

#### **Product information**

#### **Acute toxicity**

| Components                         | RTECS Number: | Selected LD50s and LC50s |  |
|------------------------------------|---------------|--------------------------|--|
| Vascular Endothelial Growth Factor | Not Available | Not Determined           |  |

**Chronic toxicity:** Chronic exposure may cause nausea and vomiting,

higher exposure causes unconsciousness.

**Local effects:** Symptoms of overexposure may be headache,

dizziness, tiredness, nausea and vomiting.

Specific effects: May include moderate to severe erythema (redness)

and moderate edema (raised skin), nausea, vomiting,

headache

Primary irritation:

Carcingenic effects:

No data is available on the product itself.

No data is available on the product itself.

No data is available on the product itself.

Reproductive toxicity:

No data is available on the product itself.

#### 12. ECOLOGICAL INFORMATION

Mobility:No data availableBioaccumulation:No data availableEcotoxicity effects:No data available

Aquatic toxicity: May cause long-term adverse effects in the aquatic

environment.

Components
U.S. DOT -Appendix B - U.S. DOT -Appendix B - United Kingdom - The red

Marine Pollutants

Vascular

Endothelial

Growth Factor

U.S. DOT -Appendix B - United Kingdom - The red

Severe Marine Pollutants

Not Listed

Not Listed

Not Listed



| Components    | Germany VCI (WGK) | World Health Organization | Ecotoxicity - Fish Species |
|---------------|-------------------|---------------------------|----------------------------|
|               |                   | (WHO) - Drinking Water    | Data                       |
| Vascular      | Not Listed        | Not Listed                | Not Listed                 |
| Endothelial   |                   |                           |                            |
| Growth Factor |                   |                           |                            |

| Components    | Ecotoxicity | - | Freshwater | Ecotoxicity | _ | Microtox | Ecotoxicity - Water Flea |
|---------------|-------------|---|------------|-------------|---|----------|--------------------------|
|               | Algae Data  |   |            | Data        |   |          | Data                     |
| Vascular      | Not Listed  |   |            | Not Listed  |   |          | Not Listed               |
| Endothelial   |             |   |            |             |   |          |                          |
| Growth Factor |             |   |            |             |   |          |                          |

| Components    | EPA – ATSDR Priority List | EPA - HPV Challenge          | California – Priority Toxic |
|---------------|---------------------------|------------------------------|-----------------------------|
|               |                           | <b>Program Chemical List</b> | Pollutants                  |
| Vascular      | Not Listed                | Not Listed                   | Not Listed                  |
| Endothelial   |                           |                              |                             |
| Growth Factor |                           |                              |                             |

#### 13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Waste disposal must be in accordance with

appropriate Federal, State and local regulations. This product, if unaltered by use, may be disposed of treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be

hazardous.

**Contaminated packaging:**Do not re-use empty containers.

## 14. TRANSPORT INFFORMATION

UN/Id No:

IMDG/IMO

DOT IMDG – Hazard Classifications

Proper shipping name:

Not regulated

TGD(Canada)

WHMIS hazard class:



Not Regulated

#### Not Applicable

Non - controlled

| Components    | U.S. DOT –Appendix A Table 1 – Reportable Quantities |
|---------------|--|
| Vascular      | Not Listed   |
| Endothelial   |  |
| Growth Factor |  |

| Components    | U.S. DOT –Appendix B – Marine Pollutants | U.S. DOT -Appendix B - Severe Marine |
|---------------|--|--------------------------------------|
|               |  | Pollutants                           |
| Vascular      | Not Listed                               | Not Listed                           |
| Endothelial   |  |                                      |
| Growth Factor |  |                                      |

#### IMO - labels:

#### 15. REGULATORY INFOTMATION

#### **International Inventories**

| Components    | Inventory – United States TSCA – Sect.8(b) | Canada DSL Inventory List - |
|---------------|--|-----------------------------|
| Vascular      | Not Listed                                 | Not Listed                  |
| Endothelial   |  |                             |
| Growth Factor |  |                             |

### U.S. regulations:

| Components  | California proposition | Massachusetts       | New Jersey Right to | Pennsylvania  |
|-------------|------------------------|---------------------|---------------------|---------------|
|             | 65 -                   | Right to Know List: | Know List:          | Right to Know |
|             |                        |                     |                     | List:         |
| Vascular    | NA                     | Not Listed          | Not listed          | Not listed    |
| Endothelial |                        |                     |                     |               |
| Growth      |                        |                     |                     |               |
| Factor      |                        |                     |                     |               |

| Components | Florida | substance | Rhode Island Right | Illinois - Toxic Air | Connecticut - |
|------------|---------|-----------|--------------------|----------------------|---------------|
|            | List:   |           | to Know List:      | Contaminants         | Hazardous Air |



| Vascular      | Not Listed | Not Listed | Not listed | Not listed |
|---------------|------------|------------|------------|------------|
| Endothelial   |            |            |            |            |
| Growth Factor |            |            |            |            |

| Components    | SSARA           | 313 | CERCLA/SARA   | _   | NTP:       | IARC:      |
|---------------|-----------------|-----|---------------|-----|------------|------------|
|               | Emission        |     | Section 3     | 302 |            |            |
|               | reporting/Toxic |     | Extremely Haz |     |            |            |
|               | Release         | of  |               |     |            |            |
|               | Chemicals       |     |               |     |            |            |
| Vascular      |                 |     | Not Listed    |     | Not listed | Not listed |
| Endothelial   |                 |     |               |     |            |            |
| Growth Factor |                 |     |               |     |            |            |

#### **16. OTHER INFORMATION**

Prepared by: Health & Safety

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End of safety data sheet