

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - Product and Company Information

**Product name:** GRN (Human) Recombinant Protein  
**Company:** Abnova (Taiwan) Corporation  
**Address:** No. 326-8, Sec. 4, Zhongzheng Rd. Zhongli Dist., Taoyuan City 320  
Taiwan.  
**Telephone:** +886-3-4989228  
**Fax:** +886-3-4989665, +886-3-4989695

### SECTION 2 - Hazards Identification

#### Classification of the substance or mixture

This substance does not meet the classification criteria to be listed as a hazardous material according to the Regulation (EC) No. 1272/2008 (CLP/EU-GHS), 29 CFR 1910.1200 (OSHA): Liquid.

#### Label elements

Does not need to be labeled in accordance with EC directives or respective national laws.

#### Other hazards – none

### SECTION 3 - Composition/Information on Ingredient

This product does not contain hazardous chemicals or carcinogens at concentrations of greater than 1%.

### SECTION 4 - First aid measures

#### Description of first aid measures

##### After inhalation:

Supply fresh air; consult doctor in case of complaints.

##### After skin contact:

Immediately wash with water and soap and rinse thoroughly. Generally, the product does not irritate the skin.

##### After eye contact:

Rinse opened eye for several minutes under running water. Consult a doctor.

##### After swallowing:

Rinse mouth with water. Seek medical attention and appropriate follow-up.

#### Most important symptoms and effects, both acute and delayed

No data available.

**Indication of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5 - Fire fighting measures****Extinguishing media**

Suitable extinguishing media

Use water spray or extinguishing measure that is appropriate to local circumstances and the surrounding environment.

**Special hazards arising from the substance or mixture**

No data available.

**Special precautions for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Further information**

This product does not burn.

**SECTION 6 - Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Use standard laboratory practices and appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions**

Keep away from drains.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as per section 13. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**SECTION 7 - Handling and storage****Precautions for safe handling**

Avoid inhalation of vapor or mist. Avoid contact with eyes and skin.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store in incompatible containers.

**Specific end uses**

No special precautions are necessary if used appropriately.

**SECTION 8 - Exposure Controls****Control parameters**

Contains no substances with occupational exposure limit values.

**Exposure controls**Appropriate engineering controls

Ensure adequate ventilation. Use appropriate personal protective work clothing. Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

**Personal protective equipment**Eye/face protection

Wear approved safety goggles.

Skin/Hand protection

Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Other Skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Body Protection

Wear suitable protective clothing as protection against splashing or contamination.

Respiratory protection

In case of inadequate ventilation, use a suitable respirator. 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).

**SECTION 9 - Physical and chemical properties**

Appearance: Liquid.	Upper/lower flammability or explosive limits: Not available.
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Odor: Little to none.	Vapor pressure/density: Not available.
Odor threshold: Not available.	Relative Density: Not available.
pH: Not available.	Solubility in/Miscibility with Water: Not available.
Melting point/freezing point: Not available.	Partition coefficient: noctanol/water: Not available.
Boiling point/Boiling range: Not available	Auto igniting: Product is not self-igniting.
Flash point: Not available.	Decomposition temperature: Not available.
Evaporation rate: Not available.	Viscosity: Not available.
Flammability: Not available.	

## SECTION 10 - Stability and reactivity

### Reactivity

Stable under recommended transport and storage conditions.

### Chemical stability

Stable under recommended storage and handling temperatures.

### Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions.

### Conditions to avoid

Heat and moisture.

### Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

### Hazardous decomposition products

In combustion may emit toxic fumes. No known decomposition information.

## SECTION 11 - Toxicological information

### Information on toxicological effects

#### Acute toxicity

No data available.

#### Skin corrosion/irritation

No data available.

#### Serious eye damage/eye irritation

No data available.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

IARC: No data available.

**Reproductive toxicity**

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 likely routes of exposure**

Routes of entry anticipated; oral, dermal, inhalation.

**Short term exposure / Potential immediate effects**

No data available.

Potential delayed effects

No data available.

**Long term (chronic) exposure / Potential immediate effects**

No data available.

Potential delayed effects

No data available.

**Numerical measures of toxicity**

No data available.

**Additional Information**

No data 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.

**Results of PBT and vPvB assessment**

No data available.

**Other adverse effects**

No data available.

**SECTION - 13 Disposal Considerations**

**Waste treatment methods****Product**

Dispose of waste in accordance to applicable national, regional, or local regulations.

**Contaminated packaging**

Dispose in the same manner as unused product.

**Special precautions**

Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

**SECTION 14 - Transport information****ADR/RID ADN/ADNR IMDG IATA/DOT**

Non-hazardous for transport.

**UN-Number/ UN proper shipping / Transport hazard class/ Packaging group/ Environmental/ Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**SECTION 15 - Regulatory information****US Federal and State Regulations**

TSCA (Toxic Substances Control Act): Not applicable.

SARA 313: Not applicable.

SARA 311/312 Hazards: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

**European Union**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

**SECTION 16 - Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Abnova shall not be held liable for any damage resulting from handling or from contact with the above product.