

## SAFETY DATA SHEET

### SECTION 1 - Product and Company Identification

**Product name:** Recombinant Human ARHGEF4 GST (N-Term) Protein

**Catalog ID:** H00050649-Q01

**Company:** Abnova (Taiwan) Corporation

**Address:** No. 326-8, Sec. 4, Zhongzheng Rd. Zhongli Dist., Taoyuan City 320  
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### SECTION 2 - Hazards Identification

#### Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No. 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA].

#### Label elements

This product does not need to be labelled in accordance with EC directives or respective national laws.

#### Other hazards

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3 - Composition/Information on Ingredient

#### Mixture

Supplied in 50 mM Tris-HCl, 10 mM reduced Glutathione, pH 8.0

| Component                                                     |                    | Concentration |
|---------------------------------------------------------------|--------------------|---------------|
| Tris-HCl (C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> HCl) | CAS No.: 1185-53-1 | 50 mM         |
|                                                               | EC No.: 214-684-5  |               |
| Reduced glutathione                                           | CAS No.: 70-18-8   | 10 mM         |
|                                                               | EC No.: 200-725-4  |               |

#### SECTION 4 - First Aid Measures

- Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
- Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- Notes to Physician:** Treat symptomatically and supportively.

#### SECTION 5 - Firefighting Measures

- Fire Extinguisher Type:** Use water spray, dry chemical, carbon dioxide, or chemical foam.
- Fire Fighting Procedure:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is noncombustible.
- NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

#### SECTION 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## SECTION 7 - Handling and Storage

**Handling:** Wash hands thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Do not eat, drink or smoke when using this product.

**Storage:** Stored at -80°C.

## SECTION 8 - Exposure Controls/Personal Protection

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

## SECTION 9 - Physical and Chemical Properties

**Appearance:** Liquid

**pH:** pH 8.0

**Boiling point:** Not available

**Vapor density:** Not available

**Vapor pressure:** Not available

**Density (g cm<sup>-3</sup>):** Not available

**Flash point:** Not available

**Explosion limits:** Not available

Auto ignition temperature: Not available

## SECTION 10 - Stability and Reactivity

|                             |                                                                                                                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability:</b>           | Stable.                                                                                                                                                                                                                                                                                         |
| <b>Conditions to avoid:</b> | Heating above room temperature, freezing, contaminating.                                                                                                                                                                                                                                        |
| <b>Materials to avoid:</b>  | Generally use only clean glass and plastic suitable for laboratory use for handling the antibody preparation.<br>Note that individual ingredients are incompatible with acids, heavy metals, metallic salts, bromine, dimethylsulfate, copper, dichloromethane, carbondisulfide and peptidases. |
| <b>Dangerous reactions:</b> | In the case of fire see section 5.                                                                                                                                                                                                                                                              |

## SECTION 11 - Toxicological Information

|                              |                      |
|------------------------------|----------------------|
| <b>Epidemiology:</b>         | No information found |
| <b>Teratogenicity:</b>       | No information found |
| <b>Reproductive Effects:</b> | No information found |
| <b>Mutagenicity:</b>         | No information found |
| <b>Neurotoxicity:</b>        | No information found |

## 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**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

**SECTION 14 - Transport Information**

Overland transportation (ADR/RID): As a mixture, the substance is subject to no limitations.

Transatlantic transportation (IMDG): As a mixture, the substance is subject to no limitations.

Air transportation (ICAO/IATA): As a mixture, the substance is subject to no limitations.

**SECTION 15 - Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture**

The product does not contain a hazardous ingredient in an amount that requires identification and labeling according to EC directives.

**Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture.

**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.