

## Specification of materials

Product:	<b>GenBody COVID-19 Ag</b>
Date:	<b>2020-06-02</b>

Prepared by / date	Reviewed by / date	Approved by / date
<b>Researcher</b>	<b>R&amp;D Director</b>	<b>QMR</b>
<b>Seo seul ki</b>	<b>Jedae Moon</b>	<b>Jung Young Choi</b>
<b>2020-06-02</b>	<b>2020-06-02</b>	<b>2020-06-02</b>



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**Technical File**

**0. Revision history**

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Revision History		
Rev. O	2020. 06. 02	Release of the Component Specifications for the GenBody COVID-19 Ag

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## Technical File

### Specify:

1. Materials used (characterize all starting material, e.g. chemical name)

2. Biological Safety

2.1. MSDS

1. Product and Company Information			
Product Name: GenBody COVID-19 Ag			
Product Number: COVAG025			
Company: GenBody Inc.			
Address: GenBody Inc.			
3-18, Eopseong 2-gil, Seobuk-gu, Cheonan-si, Chungcheongnam-do 31077, Republic of Korea			
Technical Phone: +82-41-523-8993			
2. Composition/Information on Ingredient			
Hazardous/Non-hazardous Components			
Chemical Name	CAS No.	EEC No.	Weight %
Sodium azide	26628-22-8	247-852-1	≤ 0.1 %
3. Hazards Identification.			
The product is classified and labeled in accordance with Directive 1272/2008/EC.			
Classification			
Indication of danger			
Warning			
			
Hazard Statement			
H300: Fatal if swallowed			
H410: Very toxic to aquatic life with long lasting effects			
EUH032: Contact with acids liberates very toxic gas			
Precautionary Statement			
P273: Avoid release to the environment			
P308+P310: IF exposed or concerned: immediately call a POISON CENTER or doctor/physician			
4. First Aid Measures.			
<b>Inhalation</b>	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.	
<b>Ingestion</b>	:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything 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.	
<b>Skin Contact</b>	:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.	
<b>Eye Contact</b>	:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water at least 15 minutes. Cold water may be used. Get medical attention.	

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### 5. Fire Fighting Measures.

#### Extinguishing Media

<b>Suitable</b>	: Not applicable. Use an extinguishing agent suitable for surrounding fires.
<b>Flammability of the Product</b>	: Non-flammable.
<b>Autoignition Temperature</b>	: Not applicable.
<b>Flash Points</b>	: Not applicable.
<b>Flammable Limits</b>	: Not applicable.
<b>Fire Hazards in Presence of Various Substances</b>	: Not applicable.
<b>Explosion Hazards in Presence of Various Substances</b>	: Not considered as a product presenting risks of explosion.
<b>Special Remarks on Fire Hazards</b>	: Not available.

### 6. Accidental Release Measures

<b>Environmental Precautions and Clean-up Methods</b>	: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
<b>Small Spill and Leak</b>	: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### 7. Handling / Storage

<b>Handling</b>	: Avoid breathing vapors or spray mists.
<b>Storage</b>	: Keep container tightly closed. Keep container in a cool, well-ventilated area.

### 8. Exposure Controls / Personal Protection

**Engineering measures** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

#### Personal protective equipment

<b>Skin and Body</b>	: Lab coat.
<b>Hands</b>	: Gloves.
<b>Eyes</b>	: Safety glasses.
<b>Feet</b>	: Not applicable

**Personal Protection in Case of a Large Spill** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Consult local authorities for acceptable exposure limits.**

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9. Physical / Chemical Properties			
<b>Physical state</b>	: Liquid.		
<b>Color</b>	: Colorless.		
<b>Odor</b>	: Not available.		
<b>Odor Threshold</b>	: Not available.		
<b>Taste</b>	: Not available.		
<b>Molecular Weight</b>	: Not applicable.		
<b>Molecular Formula</b>	: Not applicable.		
<b>pH</b>	:: Neutral		
<b>Boiling Point</b>	: The lowest known values is 100°C (212°F)(water)		
<b>Melting Point</b>	: May start to solidify at 0°C (32°F) based on data for: water.		
<b>Critical Temperature</b>	: The lowest known value is 374.3°C(705.7°F)(water).		
<b>Vapor Pressure</b>	: The highest known value is 3.2 kPa (23.8 mmHg) (at 20°C)		
<b>Volatility</b>	: 0%(w/w). (water). Weighted average: 0%(w/w).		
<b>VOC</b>	: -90°C(%).		
<b>Evaporation rate</b>	: 0.36 (water) compared to (n-butyl acetate= 1).		
<b>Specific Gravity</b>	: Not available.		
<b>Solubility</b>	: Easily soluble in cold water, hot water, methanol, acetone.		
<b>Ionicity (in Water)</b>	: Amphoteric. (water).		
<b>Dispersion Properties</b>	: See solubility in water, methanol, acetone.		
<b>Physical Chemical Comments</b>	: Not available.		
10. Stability / Reactivity			
<b>Stability</b>	: The product is stable.		
<b>Hazardous Decomposition Products</b>	: Not applicable.		
<b>Hazardous Polymerization</b>	: Will not occur.		
<b>Explosion Hazards in Presence of Various Substances</b>	: Not considered as a product presenting risks of explosion.		
11. Toxicological Information			
<b>Acute toxicity</b>			
<b>Chemical Name</b>	<b>LD50(oral, rat/mouse)</b>	<b>LD50(dermal, rat/rabbit)</b>	<b>LC50(inhalation, rat/mouse)</b>
<b>Sodium azide</b>	<b>No data available</b>	<b>Rabbit: 20 mg/kg</b>	<b>Rat: 37 mg/m<sup>3</sup></b>
<b>Water, Distilled</b>	<b>No data available</b>	<b>No data available</b>	<b>No data available</b>
<b>Principle Routes of Exposure/ Potential Health effects</b>			
<b>Eyes:</b> May cause eye irritation with susceptible persons.			
<b>Skin:</b> May cause skin irritation in susceptible persons.			
<b>Inhalation:</b> see the table			
<b>Ingestion:</b> No information available			
<b>Specific effects</b>			
<b>Carcinogenic effects:</b> No information available			
<b>Mutagenic effects:</b> No information available			
<b>Reproductive toxicity:</b> No information available			
<b>Sensitization:</b> No information available			
<b>Target Organ Effects:</b> Eyes. Skin.			

**Technical File****12. Ecological Information****Ecotoxicity effects:** No information available.**Mobility:** No information available.**Biodegradation:** No information available.**Bioaccumulation:** No information available.**13. Disposal Considerations****Methods of disposal; Waste of residues; Contaminated packaging** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.**Waste Stream** : Not available.**Consult your local or regional authorities.****14. Transport Information****IATA****Proper shipping name:** Not classified as dangerous in the meaning of transport regulations**Hazard Class:** No information available**Subsidiary Class:** No information available**Packing group:** No information available**UN-No:** No information available**15. Regulatory Information****Chemicals known to cause cancer:****None of the ingredients is listed.****Chemicals known to cause reproductive toxicity:****None of the ingredients is listed****Carcinogeny categories****EPA (Environmental Protection Agency):**

None of the ingredients is listed

**IARC (International Agency for Research on Cancer):**

None of the ingredients is listed

**NTP (National Toxicology Program) :**

None of the ingredients is listed

**TLV(Threshold Limit Value established by ACGIH) :**

None of the ingredients is listed

**MAK(German Maximum Workplace Concentration) :**

None of the ingredients is listed

**NIOSH-Ca(National Institute for Occupational Safety and Health) :**

None of the ingredients is listed

**OSHA-Ca(Occupational Safety & Health Administration) :**

None of the ingredients is listed

**hazard-determining components of labelling :**

sodiumazide

**Risk phrases:**

Harmful if swallowed

**safety phrases:**

This material and its container must be disposed of in a safe way.

Wear suitable protective clothing.

If swallowed, seek medical advice immediately and show this container or label.

**National regulations:****Water hazard class:** Generally not hazardous for water.

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### 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 guideline of GENBODY INC. shall not be held liable for any damage resulting from handling or from contact with above product. Final determination of suitability of any material is the sole responsibility of user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that are the only hazards that exist.

### 3. Information on the conditions in which it was collected

N/A

### 4. Information on possible risks

N/A