SAFETY DATA SHEET

Printed: 15 Feb 2022
Ver. 1.01

1. PRODUCT AND COMPANY IDENTIFICATION

Product name HBsAgGi ELISA Kit
Product code RCEK-001
Component
- HBsAgGi coated plate：96 well (8-well strip x 12)
- Standard M-HBsAg (1 mL)
- 20X Wash Buffer (50 mL)
- Dilution Buffer (24 mL)
- HRP-labeled HBsAgGi (10 mL)
- TMB Substrate (11 mL)
- Stop Solution (12 mL)

Manufacturer RCMG Inc.
Address 2-1-6 Sengen Plaza Suit 106,
Tsukuba, Ibaraki 305-0047, Japan
Phone +81-29-828-8010
E-mail marketing@rcmg-glyco.com
Recommended uses and restrictions on use Use as a part of HBsAgGi ELISA Kit for in vitro laboratory use
For research use only

2. HAZARDS IDENTIFICATION

Stop Solution (12 mL)
Chemical name： Sulfuric acid (H_2SO_4)

GHS classification
Classification of the substance or mixture

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 2 respiratory system
Specific target organ toxicity (repeated exposure)	Category 2 respiratory system

Pictograms：

Signal word： Danger

Hazard statements：

H315 - Causes skin irritation
H318 - Causes serious eye damage
H371 - May cause damage to the following organs: respiratory system
H373 - May cause damage to the following organs through prolonged or repeated exposure: respiratory system

Precautionary statements:
Prevention
- Wash face, hands and any exposed skin thoroughly after handling

- Do not eat, drink or smoke when using this produc Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray

Response

- IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation occurs: Get medical advice/attention
- Take off contaminated clothing and wash before reuse.

Storage

- Store in a locked place.

Disposal

- Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Stop Solution (12 mL)

Single substance or mixture：	Mixture
Chemical name：	Sulfuric acid
Chemical formula：	H_2SO_4
Molecular weight：	98.08
CAS RN：	7664-93-9
Weight-%：	1.9%
ENCS：	(1)－430

4. FIRST-AID MEASURES

Inhalation

- Move to a place with fresh air and let a person rest in a position for easy breathing.
- See a physician/medical attention, if you feel unwell.
- If symptoms persist, call a physician.

Skin contact

- Immediately remove contaminated clothing and wash if reused.
- Wash off immediately with soap and plenty of water.
- If symptoms persist, call a physician.

Eye contact

- IF IN EYES: Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do.
- Continue rinsing.
- Immediate medical attention is required.

Ingestion

- Rinse mouth. Never give anything by mouth to an unconscious person.
- Call a physician or poison control center immediately.
- Do not induce vomiting without medical advice.

Protection of first-aiders

- Use personal protective equipment as required

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding

environment.

Unsuitable extinguishing media

No information available.

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

Move the container out of the fire area if it is not dangerous. After extinguishing the fire, continue to cool the container sufficiently by using a large amount of water.

In case of a large fire, extinguish the fire using an unmanned hose holding device or a monitored nozzle. If this is not possible, evacuate the area and allow the fire to burn.

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and work from upwind to avoid inhaling fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminent and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Handling

Technical measures

Avoid contact with alkaline substances. Use with local exhaust ventilation.

Local exhaust and total ventilation

Handle in a place with adequate local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging.
Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain.
Seal the container after use.
After handling, wash hands and face, and then gargle.
In places other than those specified, should not be smoking or eating and drinking.
Should not be brought contaminated protective equipment and gloves to rest stops.
Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Avoid contact with skin, eyes or clothing.
Use personal protective equipment as required.

Appropriate hygiene measures

When using this product, should not be smoking or eating and drinking.
After handling, wash hands.

Storage

Safe storage conditions

Store away from sunlight in well-ventilated place at room temperature (preferably cool). Keep container tightly closed.

Incompatible substances

Alkaline substances

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system.

Provide the safety shower facility, and hand and eye-wash facility. And display their position clearly.

Exposure limits

Chemical name：Sulfuric acid 7664-93-9

JSOH (Japan)： 1mg/m^3

ACGIH：TWA 0.2mg/m^3

Personal protective equipment

Respiratory protection：Gas mask for acidic gas

Hand protection：Impermeable protective gloves

Eye protection： Protective eyeglasses or chemical safety goggles

Skin and body protection：Long-sleeved work clothes

9. PHYSICAL AND CHEMICAL PROPERTIES 物理的及び化学的性質

	HBsAgGi coated plate：96 well (8-well strip x 12)	Standard M-HBsAg (1 mL)	20X Wash Buffer (50 mL)
Appearance	Plate	Liquid	Liquid
Color	Colorless	Blue	Colorless
Odor	Odorless	Odorless	Odorless
Melting point/freezing point	No data available	No data available	No data available
Boiling point, initial boiling point and boiling range	No data available	No data available	No data available
Flammability	No data available	No data available	No data available
Upper/lower flammability or explosive limits	No data available	No data available	No data available
Flash point	No data available	No data available	No data available
Auto-ignition temperature	No data available	No data available	No data available
Decomposition temperature	No data available	No data available	No data available
pH	No data available	No data available	No data available
Dynamic viscosity	No data available	No data available	No data available
Solubilities	No data available	No data available	No data available
n-Octanol/water partition coefficient:(log Pow)	No data available	No data available	No data available
Vapour pressure	No data available	No data available	No data available
Specific Gravity / Relative density	No data available	No data available	No data available
Vapour density	No data available	No data available	No data available
Particle characteristics	No data available	No data available	No data available

	Dilution Buffer (24 mL)	HRP-labeled HBsAgGi (10 mL)	TMB Substrate (11 mL)	Stop Solution (12 mL)
Appearance	Liquid	Liquid	Liquid	Liquid
Color	Blue	Orange	Colorless to light yellow	Colorless
Odor	Odorless	Odorless	Odorless	Odorless
Melting point/freezing point	No data available	No data available	No data available	No data available
Boiling point, initial boiling point and boiling range	No data available	No data available	No data available	No data available
Flammability	No data available	No data available	Non-inflammability	No data available
Upper/lower flammability or explosive limits	No data available	No data available	No data available	No data available
Flash point	No data available	No data available	No data available	No data available
Auto-ignition temperature	No data available	No data available	No data available	No data available
Decomposition temperature	No data available	No data available	No data available	No data available
pH	No data available	No data available	Acidic	> 2.0
Dynamic viscosity	No data available	No data available	No data available	No data available
Solubilities	No data available	No data available	Water 100%	Water, Ethanol: miscible
n-Octanol/water partition coefficient:(log Pow)	No data available	No data available	No data available	No data available
Vapour pressure	No data available	No data available	No data available	No data available
Specific Gravity / Relative density	No data available	No data available	No data available	1.010
Vapour density	No data available	No data available	No data available	No data available
Particle characteristics	No data available	No data available	No data available	No data available

10. STABILITY AND REACTIVITY

Stop Solution (12 mL)

Stability： Stable under recommended storage conditions

Hazardous reactions： None under normal processing

Conditions to avoid： Extremes of temperature and direct sunlight

Incompatible materials： Alkaline substances

Hazardous decomposition products： Sulfur oxides (SOx)

11. TOXICOLOGICAL INFORMATION

Stop Solution (12 mL) Chemical Name：Sulfuric acid

Acute toxicity：

Oral LD50 Rat 2140mg/kg
Inhalation LC50 Rat 0.375mg/L
Acute toxicity -oral- source information: Based on the NITE GHS classification results.
Acute toxicity -inhalation mist-source information: Based on the NITE GHS classification results.

Skin irritation/corrosion： Acidic (pH ≤ 2) and classified as category 1.

Serious eye damage/ irritation： Acidic (pH ≤ 2) and classified as category 1

Respiratory or skin sensitization：Based on the NITE GHS classification results.

Reproductive cell mutagenicity： No data available

Carcinogenicity：No data available

Reproductive toxicity：Based on the NITE GHS classification results.

STOT-single exposure：Sulfuric acid (1.957%) and classified as category 2 (respiratory system)

STOT-repeated exposure：Sulfuric acid (1.957%) and classified as category 2 (respiratory system)

Aspiration hazard：No data available

12. ECOLOGICAL INFORMATION

Stop Solution (12 mL)

Chemical Name：Sulfuric acid

Ecotoxicity（hazardous to the aquatic environment source information, short-time or long-time）： Based on the NITE GHS classification results.

Persistence and degradability：No information available

Bioaccumulative potential：No information available

Mobility in soil：No information available

Hazard to the ozone layer：No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues：

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated container and contaminated packaging：

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

International

ADR/RID

• UN No.	3264
• Proper Shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
• Class	8
• Packing Group	III
• Marine pollutant	Not Applicable

IMDG Ⅰ

• UN No.	3264
• Proper Shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
• Class	8
• Packing Group	III
• Marine Pollutant	Not Applicable
• Transport in bulk according to MARPOL 73/78, Annex Ⅱ, and the IBC code.	Not Applicable

IATA

- UN No. 3264
- Proper Shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
- Class 8
- Packing Group III

Domestic

Marine Regulatory Information

- UN No. 3264
- Proper Shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
- Class 8
- Packing Group III
- Marine Pollutant Not Applicable
- Transport in bulk according to MARPOL 73/78, Annex Ⅱ, and the IBC code. Not Applicable

Aviation Regulation Information

- UN No. 3264
- Proper Shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
- Class 8
- Packing Group III

Precautions

Follow the instructions in the Handling and Storage Precautions section. When transporting the product, avoid direct sunlight, make sure there are no leaks in the container, load the product so that it does not fall over, fall, or be damaged, and make sure to prevent the product from collapsing.

15. REGULATORY INFORMATION

Fire Service Act

- Not applicable

Poisonous and Deleterious

- Not applicable

Industrial Safety and Health Act

- Group 3 Specified Chemical Substance, (Ordinance on Prevention of Hazards Due to Specified Chemical Substances Art.2 Para.1, Item 6)
- Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached TableNo.9) No.613
- Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18)

Water Pollution Control Act

- Specified substances (Law Art.2 Para.4, Enforcement Order Art.3-3)

Regulations for the carriage and storage of dangerous goods in ship

- Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)

Civil Aeronautics Law

- Corrosive Substances (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)

Marine Pollution Prevention Law

- Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y

Air Pollution Control Law

- Specified Substances

16. OTHER INFORMATION

Key literature references

Ministry of Health, Labour and Welfare, Anzen Info (Japanese)
https://anzeninfo.mhlw.go.jp/index.html

NITE Chemical Risk Information Platform（NITE-CHRIP）
https://www.nite.go.jp/chem/chrip/chrip_search/systemTop
NITE Preparing GHS aligned Labels and SDS
https://www.nite.go.jp/chem/english/ghs/ghs_sds.html

The information in this Safety Data Sheet is based on the best of our knowledge and information at the date of its publication, and is applicable to the product with regard to appropriate safety precautions. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification.