



DIAGNOSTIC AUTOMATION, INC.

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MATERIAL SAFETY DATA SHEET

HBsAg

IDENTIFICATION OF THE PREPARATION AND COMPANY NAME.

Supplier: Diagnostic Automation Inc.
21250 Califa Street, Suite 102 and 116,
Woodland hills, CA 91367 USA

Emergency Telephone number: Please contact the local hospitals.

Product Name: HBsAg
Catalog No: 1701-12
For In Vitro Use Only

KIT COMPONENTS AND CHEMICAL TOXICITY

Components of the kit	Format	Hazardous Chemicals	CAS#	Pages	EU R&S-paragraphs
MICROWELL PLATE	1x96well	None			
NEGATIVE CONTROL	1x1ml	(0.1%)	N/A	5-7	R43, S28-37
POSITIVE CONTROL	1x1ml	(0.1%)	N/A	5-7	R43, S28-37
HRP-CONJUGATE REAGENT	1x7ml	(0.1%)	N/A	5-7	R43, S28-37
STOCK WASH BUFFER	1x30ml	Tween 20 (0.2%)	9005-64-5	8-10	R1, S1

CHROMOGEN SOLUTION B	1x7ml	TMB solution (0.1%)	54827-17-7	11-13	R20/21/22, S26-36/33/6/37/38/40
CHROMOGEN SOLUTION A	1x7ml	Hydrogen peroxide (0.1%)	7722-84-1	11-13	R34, S3-28-36/39-45
STOP SOLUTION	1x7ml	Sulfuric Acid	7664-93-9	2-4	R34, S36-37, S39 S24, S25

BIOLOGICAL SAFETY

Antibody: monoclonal and polyclonal antibodies to hepatitis B virus surface antigen (anti-HBs)

Infectivity: none (commercially available preparation)

Human origin materials:

Positive control: Materials from human origin may have been used in the preparation of the Positive Control of the kit. These materials have been tested and found negative for antibodies to HCV, TP, HIV 1+2 and HbsAg.

Negative control: Materials from human origin may have been used in the preparation of the Negative Control of the kit. These materials

have been tested and found negative for antibodies to HCV, HIV ½, TP and HBsAg.

Bovine origin materials: for stabilization of controls and HRP-Conjugate reagent, sera bovine serum albumin (BSA) and fetal calf sera (FCS) are used; these products are derived from animals from geographical areas known to be BSE-free.

IDENTIFICATION OF SUBSTANCES / PREPARATION

Component name: Stop solution

Catalog No.: N/A

Application: Stopping solution in DAI HBsAg ELISA

Hazardous component: Sulfuric Acid (H₂SO₄) Water Solution

COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution C; 35

Hazardous ingredients:

CAS# 7664-93-9 2 Molar Sulfuric acid

HAZARD IDENTIFICATION



C Corrosive (not indicated on reagent label)
R34 Cause burns

FIRST AID MEASURES

- **After inhalation** In case of unconsciousness place patient stably in side position for transportation

- **After skin contact** Immediately wash with water and soap and rinse thoroughly
- **After eye contact** Rinse opened eye for several minutes under running water
- **After swallowing** Drink plenty of water and provide fresh air. Call for a doctor immediately

FIRE FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Non-applicable extinguishing media: Undetermined

Special exposure hazards arising from the substance or preparation itself: Undetermined

Special protective equipment for fire fighters. Not required

ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

- Prevent seepage into sewage system, work pits and cellars. Dilute with plenty of water.
- Do not allow entering sewers/ surface or ground water.

Measures for cleaning

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Use neutralizing agent.
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

HANDLING AND STORAGE

Handling: Cannot be stored indefinitely

Information for safe handling, fire, and explosion protection: No special measures required

Storage:

Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.

Information about storage in one common storage facility: Store separately from incompatible materials.

Common storage facility: Not special requirements

Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.

Storage class and class according to regulation on flammable liquids: Void

EXPOSURE CONTROL / PERSONAL PROTECTION

Additional information about design of technical facilities:

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

Additional information: The lists valid during the making were used as basis

Personal protective equipment **S36, S37, S39**

General protective and hygienic measures

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work
Avoid contact with the eyes **S25** and skin **S24**
Respiratory protection: Not required
Hand protection: **S37** required
Eye protection: **S39** required

IMPORTANT HEALTH, SAFETY ENVIRONMENTAL INFORMATION

Form: liquid	Solvent content: Organic solvents 0 %
Color: Colorless	Odor: Odourless
Flash point: N/A	Vapor pressure: N/A
Oxidizing properties:	Evaporation rate: N/A
Explosivity: N/A	Melting point: N/A
Boiling point: N/A	Danger of explosion: No explosion hazard.
Self-igniting: Not selfigniting.	Solubility in Water: Totally miscible
Relative density: N/A	PH: 0.5

STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose
Conditions to be avoided:
Dangerous reactions: No dangerous reactions known
Dangerous decomposition products: No dangerous decomposition products known

TOXICOLOGICAL INFORMATION

Acute toxicity:
Primary irritant effect:
On the skin: Caustic effect on skin and mucous membranes.
On the eye: Strong caustic effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product shows the following dangers:
Corrosive - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

ECOLOGICAL INFORMATION

Ecotoxicity: N/A
Mobility: N/A
Persistence and degradability:
Bioaccumulative potential
Others: Hazardous for water
Danger to drinking water if even small quantities leak into the ground. Should not be allowed to reach ground water, water route or sewage system undiluted or unneutralized.

DISPOSAL CONSIDERATIONS

Recommendation Smaller quantities can be disposed of with household waste.

Uncleaned packaging: N/A

Recommended cleansing agents: Water, if necessary together with cleansing agents.

TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HBsAg ELISA

Packaging group: II

Classification: R34

Maritime Transport IMDG/GGVSee

Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HBsAg ELISA

Packaging group: II

Classification: R34

EmS: 8-06

Marine pollutant: No

Air Transport ICAO/IATA

Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HBsAg ELISA

Packaging group: II

Classification: R34

REGULATIONS

Code letter and hazard designation of product: N/A

Risk phrases: R34 Causes burns.

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 This material and its container must be disposed of as hazardous waste.

National regulations: The current regulation of DAI

Water hazard class: hazardous for water.

OTHERS

This information is based on our present state of knowledge and according to the internationally and domestically available literature. However, this MSDS shall not be used as a warranty for any specific product features.

The MSDS is not a legally valid contractual relationship.

Section 2

IDENTIFICATION OF SUBSTANCES / PREPARATION

Component name: Positive control, Negative control , HRP - Conjugate
Catalog No.: N/A **Application:** Positive control for HBsAg in DAI HBsAg ELISA
Catalog No.: N/A **Application:** Negative control for HBsAg in DAI HBsAg ELISA
Catalog No.: N/A **Application:** HRP conjugate of anti-HBs in DAI HBsAg ELISA

COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution Xi; 35 0.1%
Hazardous ingredients: CAS# N/A

HAZARD IDENTIFICATION



Xi Irritant (not indicated on reagent label)
R43 May cause sensitization by skin contact

FIRST AID MEASURES

- **After inhalation** In case of unconsciousness place patient stably in side position for transportation
- **After skin contact** Immediately wash with water and soap and rinse thoroughly
- **After eye contact** Rinse opened eye for several minutes under running water
- **After swallowing** Drink plenty of water and provide fresh air. Call for a doctor immediately

FIRE FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Non-applicable extinguishing media: N/A

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Emits toxic fumes under fire conditions

Special protective equipment for fire fighters. Wear self-contaminated breathing apparatus and protective clothing to prevent contact with skin and eyes

ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

- Prevent seepage into sewage system, work pits and cellars.
- Dilute with plenty of water.
- Do not allow entering sewers/ surface or ground water.

Measures for cleaning

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

HANDLING AND STORAGE

Handling:

Information for safe handling: No special measures required

Information about fire - and explosion protection: No special measures required

Storage:

Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.

Information about storage in one common storage facility: Store separately from incompatible materials.

Common storage facility: Not special requirements

Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.

Storage class and class according to regulation on flammable liquids: Void

EXPOSURE CONTROL / PERSONAL PROTECTION

Additional information about design of technical facilities:

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

May cause sensitization by skin contact **R 43**

In case of accident or if you feel unwell, seek medical advice immediately **S45**

Avoid release to the environment **S 61**

Additional information: The lists valid during the making were used as basis

Personal protective equipment **S36, S37, S39**

General protective and hygienic measures

Immediately remove all soiled and contaminated clothing. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice

Wash hands before breaks and at the end of work

Avoid contact with the eyes **S25** and skin **S24**

Respiratory protection: Not required

Hand protection: **S37** required

Eye protection: **S39** required

IMPORTANT HEALTH, SAFETY ENVIRONMENTAL INFORMATION

Form: liquid

Color: Colorless

Flash point: 66.11C

Oxidising properties: N/A

Explosivity: N/A

Melting point: -40C

Self-igniting: Not selfigniting.

Relative density: N/A

PH: 4.1

Odour: Odourless

Vapour pressure: >1 G/L

Evaporation rate: <1

Boiling point: 189C

Danger of explosion: No explosion hazard.

Solubility in Water: Fully miscible Z1076

Solvent content: N/A

STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose

Conditions to be avoided:

Incompatibilities: OXIDIZING AGENTS, REDUCING AGENTS, AMINES , MERCAPTANS

Hazardous combustion or decomposition products: NITROGEN OXIDES, SULFUR OXIDES, HYDROGEN CHLORIDE GAS

Hazardous polymerization: Will not occur

TOXICOLOGICAL INFORMATION

Acute toxicity:

Primary irritant effect:

- **On the skin:** Sensitization effect on skin and mucous membranes.
- **On the eye:** Strong caustic effect.

Additional toxicological information:

Acute effects – causes burns and sensitization (allergic effects) on the skin. Extremely destructive to the tissue of the mucous membranes and upper respiratory tract, the skin and the eyes. Maybe harmful if inhaled or swallowed .

INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING. EXPOSURE CAN CAUSE: DERMATITIS

ECOLOGICAL INFORMATION

Ecotoxicity: N/A

Mobility: N/A

Persistence and degradability: N/A

Bioaccumulative potential : N/A

Others: Hazardous for water; Very toxic to aquatic organisms **S 50**; Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

DISPOSAL CONSIDERATIONS

To be disposed only by professional waste disposal service. Dissolve the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: as a preservative reagent in DAI HBsAg ELISA

Packaging group: III

Classification: R43

Maritime Transport IMDG/GGVSee

Shipping name: as a preservative reagent in DAI HBsAg ELISA

Packaging group: II

Classification: R43

EmS: 8-06

Marine pollutant: Yes

Air Transport ICAO/IATA

Shipping name: as a preservative reagent in DAI HBsAg ELISA

Packaging group: II

Classification: R43

REGULATIONS

Code letter and hazard designation of product: N/A

Risk phrases: R43 May cause sensitization by skin contact

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S60 This material and its container must be disposed of as hazardous waste

S 45 In case of accident or if you feel unwell, seek medical advice immediately

S 61 Avoid release to the environment

National and international regulations: The current regulation of DAI

Water hazard class: hazardous for water.

OTHERS

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Section 3

IDENTIFICATION OF SUBSTANCES / PREPARATION

Component name: 20 X Stock Wash Buffer

Catalog No.: N/A

Application: Washing solution in DAI HBsAg ELISA

Hazardous component: Tween 20 (0.2%)

Synonyms: Polyoxyethylene (20) sorbitan monolaurate

COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution R1, S1 (As raw material)

Hazardous ingredients:

CAS# 9005-64-5

HAZARD IDENTIFICATION

- **Inhalation:** May cause mild irritation to respiratory tract.
- **Swallowing:** May cause gastrointestinal irritation.
- **Skin Contact:** Contact may cause irritation.
- **Eye Contact:** May cause irritation.

FIRST AID MEASURES

- **After inhalation:** N/A
- **After swallowing:** Get medical attention immediately. Never give anything by mouth to an unconscious person. Call for a doctor immediately
- **After skin contact** Immediately wash with water and soap and rinse thoroughly. Get medical attention if irritation develops or persists.
- **After eye contact:** Rinse opened eye for several minutes under running water. Get medical attention immediately.

FIRE FIGHTING MEASURES

Suitable extinguishing agents: N/A

Non-applicable extinguishing media: N/A

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Explosive when dry **R1 (As raw material)**

Special protective equipment for fire fighters. Wear self-contaminated breathing apparatus and protective clothing to prevent contact with skin and eyes

ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

- Prevent seepage into sewage system, work pits and cellars.
- Do not allow entering sewers/ surface or ground water.

Measures for cleaning

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- Use non-sparking tools

HANDLING AND STORAGE

Handling:

Information for safe handling: Avoid contact with skin and eyes. Wash hands before eating and after handling. Follow good hygienic practices, including no eating, drinking, or smoking in work areas.

Information about fire - and explosion protection: No special measures required

Storage:

Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.

Information about storage in one common storage facility: Store separately from incompatible materials.

Common storage facility: Not special requirements

Further information about storage conditions: Keep vials tightly closed S1. Protect against physical damage.

Storage class and class according to regulation on flammable liquids: Void

EXPOSURE CONTROL / PERSONAL PROTECTION

Additional information about design of technical facilities:

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

Avoid release to the environment **S 61**

Keep locked up **S1**

Explosive when dry **R1 (As raw material)**

Additional information: The lists valid during the making were used as basis

Personal protective equipment S36, S37, S39

General protective and hygienic measures

Immediately remove all soiled and contaminated clothing. In case of contact with the eyes, rinse immediately with plenty of water. Wash hands before breaks and at the end of work

Avoid contact with the eyes **S25** and skin **S24**

Respiratory protection: Not required

Hand protection: **S37** required

Eye protection: **S39** required

IMPORTANT HEALTH, SAFETY ENVIRONMENTAL INFORMATION

Form: liquid

Color: Colorless

Flash point: N/A

Oxidising properties: N/A

Explosivity: N/A

Melting point: N/A

Self-igniting: Not selfigniting.

Relavtive density: N/A

PH: N/A

Odour: Odourless

Vapour pressure: N/A

Evaporation rate: N/A

Boiling point: N/A

Danger of explosion: Explosive when dry

Solubility in Water: Fully miscible

Solvent content: N/A

STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose

Conditions to be avoided:

Incompatibilities: N/A

Hazardous combustion or decomposition products: N/A

Hazardous polymerization: Will not occur

TOXICOLOGICAL INFORMATION

Skin, eye, and mucous membrane irritation, harmful by ingestion, inhalation or skin absorption.
Suspected carcinogen.

ECOLOGICAL INFORMATION

Ecotoxicity: N/A

Mobility: N/A

Persistence and degradability: N/A

Bioaccumulative potential: N/A

Others:

Hazardous for water

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

DISPOSAL CONSIDERATIONS

To be disposed only by professional waste disposal service and according to the local regulations.

TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Tween 20 as detergent reagent in DAI HBsAg ELISA

Packaging group: N/A

Classification: R1 (**As raw material**)

Maritime Transport IMDG/GGVSee

Shipping name: Tween 20 as detergent reagent in DAI HBsAg ELISA

Packaging group: N/A

Classification: R1 (**As raw material**)

Marine pollutant: not studied

Air Transport ICAO/IATA

Shipping name: Shipping name: Tween 20 as detergent reagent in DAI HBsAg ELISA

Packaging group: N/A

Classification: R1 (**As raw material**)

REGULATIONS

Code letter and hazard designation of product: N/A

Risk phrases: Explosive when dry **R1 (As raw material)**

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S60 This material and its container must be disposed of as hazardous waste

S 45 In case of accident or if you feel unwell, seek medical advice immediately

S 61 Avoid release to the environment

S1 Keep locked up

National and international regulations:

The current regulation of DAI
Water hazard class: Not studied.

OTHERS

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Section 4

IDENTIFICATION OF SUBSTANCES / PREPARATION

Component name: Chromogen A and Chromogen B Solutions

Catalog No.: N/A **Application:** Chromogen A – substrate A reagent for color development in DAI HBsAg ELISA

Catalog No.: N/A **Application:** Chromogen B - substrate B reagent for color development in DAI HBsAg ELISA

Hazardous component: Substrate A – urea hydrogen peroxide solution

Hazardous component: Substrate B – 3,3',5,5'-tetramethylbenzidine (TMB)

COMPOSITION / INFORMATION ON INGREDIENTS

Chromogen B: Aqueous solution; T ; Xn  ;  (As raw material) Concentration < 0.1%
CAS# 54827-17-7

R20/21/22: harmful by inhalation, in contact with skin and if swallowed.

R36/37/38: irritating to eyes, respiratory system and skin. **R40:** possible risk of irreversible effects.

S 26-36/37

Chromogen A: Aqueous solution; C ; O ;  ;  (As raw material) Concentration < 0.1% CAS# 7722-84-1

R34 Causes burns; **S 3-28-36/39-45**

HAZARD IDENTIFICATION

See Composition / Information on Ingredients

FIRST AID MEASURES

- **After inhalation** In case of unconsciousness place patient stably in side position for transportation
- **After skin contact** Immediately wash with water and soap and rinse thoroughly
- **After eye contact** Rinse opened eye for several minutes under running water
- **After swallowing** Drink plenty of water and provide fresh air. Call for a doctor immediately

FIRE FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Non-applicable extinguishing media: N/A

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Due to the nature and volume of this product, the type and amount of combustion products are negligible.

Special protective equipment for fire fighters. Not required

ACCIDENTAL RELEASE MEASURES

Personal precautions: Not required

Environmental precautions: No special considerations

Measures for cleaning

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.

HANDLING AND STORAGE

Handling:

Information for safe handling: No special measures required

Information about fire - and explosion protection: No special measures required

Storage:

Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.

Information about storage in one common storage facility: Store separately from incompatible materials.

Common storage facility: Not special requirements

Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.

Storage class and class according to regulation on flammable liquids: Void

EXPOSURE CONTROL / PERSONAL PROTECTION

Additional information about design of technical facilities:

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

In case of accident or if you feel unwell, seek medical advice immediately **S45**

Additional information: The lists valid during the making were used as basis

Personal protective equipment S36, S37, S39

General protective and hygienic measures

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice

Wash hands before breaks and at the end of work

Avoid contact with the eyes **S25** and skin **S24**

Respiratory protection: Not required

Hand protection: **S37** required

Eye protection: S39 required

S45 In case of accident or if you feel unwell, seek medical advice immediately

IMPORTANT HEALTH, SAFETY ENVIRONMENTAL INFORMATION

Form: liquid

Color: Chromogen A-Colorless

Color: Chromogen B-Colorless

Flash point: N/A

Oxidising properties: N/A

Explosivity: N/A

Melting point: N/A

Self-igniting: Not selfigniting.

Relavtive density: N/A

PH: Chromogen B 11.8

Odour: Odourless

Solubility in Water: Fully miscible Z1076

Vapour pressure: N/A

Evaporation rate: N/A

Boiling point: N/A

Danger of explosion: No explosive hazard.

Solvent content: N/A

STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose

Conditions to be avoided: Strong oxidizers, Strong acids, Strong bases

Incompatibilities: N/A

Hazardous combustion or decomposition products: N/A

Hazardous polymerization: Will not occur

TOXICOLOGICAL INFORMATION

Acute toxicity:

Primary irritant or sensitization effects:

- **On the skin:** no irritation or sensitization effects
- **On the eye:** no irritation or sensitization effects

Additional toxicological information:

When used and handled according to specifications, the products will not show any harmful effects

ECOLOGICAL INFORMATION

Ecotoxicity: N/A

Mobility: N/A

Persistence and degradability: N/A

Bioaccumulative potential : N/A

Others: Not hazardous for water. Chromogen B -Toxic to fish and other water organisms
(As a raw material)

DISPOSAL CONSIDERATIONS

Can be disposed as normal waste

Clean with water and cleaning reagent

TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HBsAg ELISA

Maritime Transport IMDG/GGVSee

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HBsAg ELISA

Marine pollutant: No

Air Transport ICAO/IATA

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HBsAg ELISA

REGULATIONS

Code letter and hazard designation of product: N/A

Chromogen B

R20/21/22: harmful by inhalation, in contact with skin and if swallowed. **(As raw material)**

R36/37/38: irritating to eyes, respiratory system and skin. **R40:** possible risk of irreversible effects.

(As raw material) S 26-36/3 (As raw material)

Chromogen A

R34 Causes burns **(As raw material)**

S 3-28-36/39-45 (As raw material)

National and international regulations:

The current regulation of DAI

Water hazard class: Not hazardous for water

OTHERS

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Date Adopted	2016-05-18
REF 1701-12	DA-HBsAg-2008



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