

For Research Use Only Not for Diagnostic Use



HIV (1+2) Ag&Ab
Catalog #: WI4496

HUMAN IMMUNODEFICIENCY VIRUSES ANTIGEN/ ANTIBODY ELISA KIT

MSDS No. WTHIVAg&AbMSDS01

Effective Date: October 01, 2005

Revision- 01

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	ProClin™ 300 (0.1%)	N/A	5-7	R43, S28-37
POSITIVE CONTROL –1	1x1ml	ProClin™ 300 (0.1%)	N/A	5-7	R43, S28-37
POSITIVE CONTROL - 2	1x1ml	ProClin™ 300 (0.1%)	N/A	5-7	R43, S28-37
ANTIGEN POS. CONTROL	1x1ml	ProClin™ 300 (0.1%)	N/A	5-7	R43, S28-37
HRP-CONJUGATE REAGENT	1x12ml	ProClin™ 300 (0.1%) Avidin (0.1%)	N/A 1405-69-2	5-7 15-19	R43, S28-37 S28A,37,45
BIOTIN-CONJUGATE REAGENT	1X3.5ml	ProClin™ 300 (0.1%) Biotin (0.1%)	N/A 58-85-5	5-7 19-22	R43, S28-37
STOCK WASH BUFFER	1x50ml	Tween 20™ (0.2%)	9005-64-5	8-10	R1, S1
CHROMOGEN SOLUTION B	1x6ml	TMB solution (0.1%)	54827-17-7	11-13	R20/21/22 ,S 26-36/33/6/37/38/40
CHROMOGEN SOLUTION A	1x6ml	Hydrogen peroxide (0.1%)	7722-84-1	11-13	R34 ,S 3-28-36/39-45
STOP SOLUTION	1x6ml	Sulfuric Acid	7664-93-9	2-4	R34, S36-37, S39 S24, S25

BIOLOGICAL SAFETY

Antigen: recombinant HIV-1gp41, gp120 and recombinant HIV-2 gp-36, Supplier – Xiamen Univ. , Xiamen, China

Antibody: monoclonal, anti-HIV p24 antibodies, Supplier – Xiamen Univ. , Xiamen, China

Infectivity: none

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.

Reagents used in this kit are generally not toxic or may have minimal toxicity. Although some of the components may be toxic AS RAW MATERIALS, they are used in small quantity in the products and are intended for use ONLY by laboratory scientists /technicians.

All components are labeled and cautions defined in the respective package insert. The product

is used by a technical staff with sufficient understanding to assure safe waste disposal.

SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: Stop solution

Catalog No.: N/A

Application: Stopping solution in HIV (1+2) Ag&Ab ELISA

Hazardous component: Sulfuric Acid (H₂SO₄) Water Solution

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution C; 35

Hazardous ingredients:

CAS# 7664-93-9 2 Molar Sulfuric acid

SECTION 3. HAZARD IDENTIFICATION

C Corrosive (not indicated on reagent label)

R34 Cause burns

SECTION 4. 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

SECTION 5. 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

SECTION 6. 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.

SECTION 7. 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

SECTION 8. 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

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Form: liquid

Color: Colorless

Flash point: N/A

Oxidizing properties:

Explosivity :N/A

Boiling point: N/A

Self-igniting: Not selfigniting.

Relative density: N/A

Solvent content: Organic solvents 0 %

Odor: Odourless

Vapor pressure: N/A

Evaporation rate: N/A

Melting point: N/A

Danger of explosion: No explosion hazard.

Solubility in Water: Totally miscible

PH : 0.5

SECTION 10. 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

SECTION 11. 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.

SECTION 12. 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.

SECTION 13. 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.

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Sulfuric Acid Water Solution as Stop solution in HIV (1+2) Ag&Ab ELISA

Packaging group: II

Classification: R34

Maritime Transport IMDG/GGVSee

Shipping name: Sulfuric Acid Water Solution as Stop solution in HIV (1+2) Ag&Ab 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 HIV (1+2) Ag&Ab ELISA

Packaging group: II

Classification: R34

SECTION 15. 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 China and 91/155/EC

Water hazard class: hazardous for water.

SECTION 16. 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 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name:	Positive control – I , Positive control – II, Antigen control, Negative control , HRP - Conjugate
Catalog No.: N/A	Application: Positive control for HIV-1 in HIV (1+2) Ag&Ab ELISA
Catalog No.: N/A	Application: Positive control for HIV-2 in HIV (1+2) Ag&Ab ELISA
Catalog No.: N/A	Application: Antigen control for HIV-1,p24 antigen in HIV (1+2) Ag&Ab ELISA
Catalog No.: N/A	Application: Negative control for HIV 1+2 in HIV (1+2) Ag&Ab ELISA
Catalog No.: N/A	Application: HRP conjugate of HIV antigen in HIV (1+2) Ag&Ab ELISA

Hazardous component: ProClin™ 300

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

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

SECTION 3. HAZARD IDENTIFICATION

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

SECTION 4. 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

SECTION 5. 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

SECTION 6. 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.

SECTION 7. 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

SECTION 8. 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

SECTION 9. IMPORTANT HEALTH, SAFETY AND 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

SECTION 10. 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

SECTION 11. 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

SECTION 12. 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.

SECTION 13. 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.

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: ProClin™ 300 as a preservative reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: III
Classification: R43

Maritime Transport IMDG/GGVSee

Shipping name: ProClin™ 300 as a preservative reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: II
Classification: R43
EmS: 8-06

Marine pollutant: Yes

Air Transport ICAO/IATA

Shipping name: ProClin™ 300 as a preservative reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: II
Classification: R43

SECTION 15. 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 China and 91/155/EC

Water hazard class: hazardous for water.

SECTION 16. OTHERS

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SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: 20 X Stock Wash Buffer

Catalog No.: N/A

Application: Washing solution in HIV (1+2) Ag&Ab ELISA

Hazardous component: Tween 20 (0.2%)

Synonyms: Polyoxyethylene (20) sorbitan monolaurate

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution **R1, S1 (As raw material)**

Hazardous ingredients:

CAS# 9005-64-5

SECTION 3. 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.

SECTION 4. 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.

SECTION 5. 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

SECTION 6. 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

SECTION 7. 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

SECTION 8. 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

SECTION 9. IMPORTANT HEALTH, SAFETY AND 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.

Relative 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

SECTION 10. 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

SECTION 11. TOXICOLOGICAL INFORMATION

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

Suspected carcinogen.

SECTION 12. 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.

SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Tween 20 as detergent reagent in HIV (1+2) Ag&Ab ELISA

Packaging group: N/A

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

Maritime Transport IMDG/GGVSee

Shipping name: Tween 20 as detergent reagent in HIV (1+2) Ag&Ab 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 HIV (1+2) Ag&Ab ELISA

Packaging group: N/A

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

SECTION 15. 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 China and 91/155/EC

Water hazard class: Not studied.

SECTION 16. OTHERS

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SECTION 1. 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 HIV (1+2) Ag&Ab ELISA

Catalog No.: N/A

Application: Chromogen B - substrate B reagent for color development in HIV (1+2) Ag&Ab ELISA

Hazardous component: Substrate A – urea hydrogen peroxide solution

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

SECTION 2. 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**

SECTION 3. HAZARD IDENTIFICATION

See section 2

SECTION 4. 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

SECTION 5. 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

SECTION 6. 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.

SECTION 7. 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

SECTION 8. 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

SECTION 9. IMPORTANT HEALTH, SAFETY AND 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.

Relative 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 explosion hazard.

Solvent content: N/A

SECTION 10. 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

SECTION 11. 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

SECTION 12. 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)**

SECTION 13. DISPOSAL CONSIDERATIONS

Can be disposed as normal waste

Clean with water and cleaning reagent

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in HIV (1+2) Ag&Ab ELISA

Maritime Transport IMDG/GGVSee

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in HIV (1+2) Ag&Ab ELISA

Marine pollutant: No

Air Transport ICAO/IATA

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in HIV (1+2) Ag&Ab ELISA

SECTION 15. 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 China and 91/155/EC

Water hazard class: Not hazardous for water

SECTION 16. 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 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: HRP-Conjugate

Catalog No.: N/A

Application: HRP-Conjugate in HIV (1+2) Ag&Ab ELISA

Hazardous component: Avidin (0.1%)

Synonyms: Glycoproteins; Avidins.

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution:

Hazardous ingredients: None

CAS# 9005-64-5

SECTION 3. HAZARD IDENTIFICATION

Appearance: white powder. **Caution!** The toxicological properties of this material have not been fully investigated. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause adverse reproductive effects based upon animal studies. **Target Organs:** No data found.

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:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
- **Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
- **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. FIRE FIGHTING MEASURES

General Information: 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. Noncombustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; 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 thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Deep freeze (below -20°C).

SECTION 8. EXPOSURE CONTROL /PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

OSHA Vacated PELs: Avidin: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

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.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Form: liquid (powder as a raw material)

Color: Colorless

Flash point: N/A

Oxidising properties: N/A

Explosivity: N/A

Melting point: N/A

Self-igniting: N/A

Relative density: N/A

PH : N/A

Odour: reported

Vapour pressure: N/A

Evaporation rate: N/A

Boiling point: N/A

Danger of explosion: N/A

Solubility in Water: N/A

Solvent content: N/A

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Temperatures above recommended temperatures, incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Irritating and toxic fumes and gases.

Hazardous Polymerization: Has not been reported

SECTION 11. TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 1405-69-2: CL1590000

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 1405-69-2: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: See actual entry in RTECS for complete information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: N/A

Mobility: N/A

Persistence and degradability: N/A

Bioaccumulative potential : N/A

Others:

SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Avidin as reagent in HIV (1+2) Ag&Ab ELISA

Packaging group: N/A

Classification: N/A

Maritime Transport IMDG/GGVSee

Shipping name: Avidin reagent in HIV (1+2) Ag&Ab ELISA

Packaging group: N/A

Classification: N/A

Marine pollutant: not studied

Air Transport ICAO/IATA

Shipping name: Shipping name: Avidin as detergent reagent in HIV (1+2) Ag&Ab ELISA

Packaging group: N/A

Classification: N/A

SECTION 15. REGULATIONS

US FEDERAL

TSCA

CAS# 1405-69-2 is not listed on the TSCA inventory. It is for research and development use only.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 1405-69-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)

CAS# 1405-69-2: No information available.

Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list. **Canada - WHMIS**

This product has a WHMIS classification of D2A.

Canadian Ingredient Disclosure List

Exposure Limits

National and international regulations:

The current regulation of China and 91/155/EC

Water hazard class: Not studied.

SECTION 16.

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.

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SECTION 1.

IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: Biotin-Conjugate Reagent

Catalog No.: N/A

Application: Biotin-Conjugate Reagent in HIV (1+2) Ag&Ab ELISA

Hazardous component: Biotin (0.1%)

Synonyms: Vitamin H, Chemical formula: C₁₀H₁₆N₂O₃S

SECTION 2.

COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution:

Hazardous ingredients: None

CAS# 58-85-5

SECTION 3.

HAZARD IDENTIFICATION

- **Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
- **Potential Chronic Health Effects:**
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

SECTION 4.

FIRST AID MEASURES

- **Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
- **Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
- **Serious Skin Contact:** Not available.
- **Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- **Serious Inhalation:** Not available.

- **Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by 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.
Serious Ingestion: Not available.

SECTION 5. FIRE FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.
Auto-Ignition Temperature: Not available.
Flash Points: Not available.
Flammable Limits: Not available.
Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).
Fire Hazards in Presence of Various Substances: Not available.
Explosion Hazards in Presence of Various Substances:
 Risks of explosion of the product in presence of mechanical impact: Not available.
 Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions:
 SMALL FIRE: Use DRY chemical powder.
 LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7. HANDLING AND STORAGE

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8. EXPOSURE CONTROL /PERSONAL PROTECTION

Engineering Controls:
 Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent.
 Gloves.
Personal Protection in Case of a Large Spill:
 Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits: Not available.

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Form: liquid (powder as a raw material)	PH : N/A
Color: Colorless	Odour: reported
Flash point: N/A	Vapour pressure: N/A
Oxidising properties: N/A	Evaporation rate: N/A
Explosivity: N/A	Boiling point: N/A
Melting point: 232.5°C	Danger of explosion: N/A
Self-igniting: N/A	Solubility in Water: N/A
Relative density: N/A	Solvent content: N/A

SECTION 10. STABILITY AND REACTIVITY

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Not available.
Toxicity to Animals:
LD50: Not available.
LC50: Not available.
Chronic Effects on Humans: Not available.
Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation: Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

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

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID

Shipping name: Biotin-conjugate reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: N/A
Classification: N/A

Maritime Transport IMDG/GGVSee

Shipping name: Biotin-conjugate reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: N/A
Classification: N/A
Marine pollutant: not studied

Air Transport ICAO/IATA

Shipping name: Biotin-conjugate reagent in HIV (1+2) Ag&Ab ELISA
Packaging group: N/A
Classification: N/A

SECTION 15. REGULATIONS

Federal and State Regulations: TSCA 8(b) inventory: Biotin
Other Regulations: Not available.
Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

This product is not classified according to the EU regulations.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.

Lab coat.

Dust respirator. Be sure to use an approved/certified respirator or equivalent.

Safety glasses.

SECTION 16.

OTHERS

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