

For Research Use Only Not for Diagnostic Use



**HEPATITIS B– Anti HBc-IgM**  
Catalog #: WB2796

IgM ANTIBODIES TO HEPATITIS B VIRUS Core Antigen ELISA KIT

MSDS No. WTHBcAB(m)MSDS01

Effective Date: July, 2003

Revision- 02

**KIT COMPONENTS AND CHEMICAL TOXICITY**

Components of the kit	Format	Hazardous Chemicals	CAS#	Pages	EU R&S-paragraphs
MICROWELL PLATE	1x96well	none			
POSITIVE/NEGATIVE CONTROLS	2x0.5ml	ProClin™ 300 (0.1%)	N/A	5-7	R43, S28-37
HRP-CONJUGATE REAGENT	1x6.5ml	ProClin™ 300 (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 ,S 26-36/33/6/37/38/40
CHROMOGEN SOLUTION A	1x7ml	Hydrogen peroxide (0.1%)	7722-84-1	11-13	R34 ,S 3-28-36/39-45
STOP SOLUTION	1x7ml	Sulfuric Acid	7664-93-9	2-4	R34, S36-37, S39 S24, S25

**BIOLOGICAL SAFETY**

**Antigen:** recombinant hepatitis B virus core antigen (HBcAg) **Infectivity:** none (commercially available preparation)

**Antibody:** monoclonal antibodies to human IgM antibodies (u-chain) have been used in the preparation of the HRP-Conjugate of the kit :  
**Infectivity:** none (commercially available preparation)

**Antibody:** monoclonal antibodies HBcAg IgM antibodies have been used in the preparation of the positive control of the kit :  
**Infectivity:** none (commercially available preparation)

**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 and 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 standards 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.

**SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION**

**Component name:** Stop solution

**Catalog No.:** N/A

**Application:** Stopping solution in HBcAb IgM ELISA

**Hazardous component:** Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) 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:** CO<sub>2</sub>, 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 HBcAb IgM ELISA

Packaging group: III

Classification: R34

**Maritime Transport IMDG/GGVSee**

Shipping name: Sulfuric Acid Water Solution as Stop solution in HBcAb IgM ELISA

Packaging group: III

Classification: R34

EmS: 8-06

Marine pollutant: No

**Air Transport ICAO/IATA**

Shipping name: Sulfuric Acid Water Solution as Stop solution in HBcAb IgM ELISA

Packaging group: III

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:**

1. Positive/Negative controls , 2. HRP - Conjugate

**Catalog No.: N/A**

**Application 1:** for determination of the successes of the assay in HBcAb IgM ELISA

**Catalog No.: N/A**

**Application 2:** HRP conjugate in HBcAb IgM 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:** CO<sub>2</sub>, 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 HBcAb IgM ELISA

Packaging group: III

Classification: R43

**Maritime Transport IMDG/GGVSee**

Shipping name: ProClin™ 300 as a preservative reagent in HBcAb IgM ELISA

Packaging group: III

Classification: R43

EmS: 8-06

Marine pollutant: Yes

**Air Transport ICAO/IATA**

Shipping name: ProClin™ 300 as a preservative reagent in HBcAb IgM ELISA

Packaging group: III

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 HBcAb IgM 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 HBcAb IgM ELISA

Packaging group: N/A

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

**Maritime Transport IMDG/GGVSee**

Shipping name: Tween 20 as detergent reagent in HBcAb IgM 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 HBcAb IgM 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**

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:** Chromogen A and Chromogen B Solutions

**Catalog No.:** N/A **Application:** Chromogen A – for color development in HBcAb IgM ELISA

**Catalog No.:** N/A **Application:** Chromogen B - for color development in HBcAb IgM 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:** CO<sub>2</sub>, 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

<b>Form:</b> liquid	<b>PH :</b> Chromogen B 11.8
<b>Color:</b> Chromogen A-Colorless	<b>Odour:</b> Odourless
<b>Color:</b> Chromogen B-Colorless	<b>Solubility in Water:</b> Fully miscible Z1076
<b>Flash point:</b> N/A	<b>Vapour pressure:</b> N/A
<b>Oxidising properties:</b> N/A	<b>Evaporation rate:</b> N/A
<b>Explosivity:</b> N/A	<b>Boiling point:</b> N/A
<b>Melting point:</b> N/A	<b>Danger of explosion:</b> No explosion hazard.
<b>Self-igniting:</b> Not selfigniting.	<b>Solvent content:</b> N/A
<b>Relative density:</b> 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 HBcAb IgM ELISA

Maritime Transport IMDG/GGVSee

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in HBcAb IgM ELISA Marine pollutant: No

**Air Transport ICAO/IATA**

Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in HBcAb IgM 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.



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