

## Material Safety Data Sheet (MSDS)

ARG80558 Human Helicobacter pylori IgA ELISA Kit

Version: 2020/09/11

### 1. Product and Company Identification

**Product Catalog No:** ARG80558**Product Name:** Human Helicobacter pylori IgA ELISA Kit**Supplier:** Arigo Biolaboratories Corp.

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### 2. Composition / Information on Ingredients

Component number	Component name	Volume	Safety Information
1	Antigen-coated microplate	8 X 12 strips	No hazards
2	Calibrator A (Negative Control)	2 ml	No hazard
3	Calibrator B (Cut-Off standard)	2 ml	No hazard
4	Calibrator C (Weak Positive Control)	2 ml	No hazard
5	Calibrator D (Positive Control)	2 ml	No hazard
6	HRP-Antibody conjugate	15 ml	No hazards
7	10X Wash buffer	60 ml	No hazards
8	Sample Diluent	60 ml	No hazards
9	TMB substrate	15 ml	Tetramethylbenzidine
10	STOP solution	15 ml	Sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ), 0.5 M

### 3. Hazards Identification

There are no ingredients contained in the preparation which are classified as harmful or polluting in the contained concentrations according to the actual state of knowledge of the manufacturer. The product is not hazardous in the sense of the directive 67/548/EC.

**Tetramethylbenzidine:** (CAS-No.: 54827-17-7; EC-No.: 259-364-6)

#### Emergency Overview

**OSHA Hazards:** Target organ effect, Highly toxic by ingestion, Highly toxic by skin absorption

**Target Organs:** Heart, Central nervous system, Brain

**GHS Classification:** Acute toxicity, Oral (Category 2)

Acute toxicity, Dermal (Category 1)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

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**Pictogram:**



**Signal word:** Danger

**0.5 M H<sub>2</sub>SO<sub>4</sub>** (CAS-No. : 7664-93-9; EC-No. : 231-639-5)

**Concentration:** 1-5%

**Classification of the substance or mixture**

C, R35; Corrosive, C, R34

**Pictogram:**

**Labelling (REGULATION (EC) No 1272/2008)**

Not dangerous substances according to GHS.

**Labelling (67/548/EEC or 1999/45/EC)**

The product does not need to be labelled in accordance with EC directives or respective national laws.

**Other hazards**

None known.

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## 4. First Aid Measures

**If in eyes:** Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.

**If on skin (or hair):** Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

**Potential acute / delayed health effects:**

**Eye contact:** Causes serious eye irritation / causes burns

**Skin contact:** Causes skin irritation / causes burns

**Inhalation:** Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. / Causes burns

**Notes to physician:** Consult a physician. Show this safety data sheet to the doctor in attendance

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## 5. Fire-Fighting Measures

**Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Hazards from the substance or mixture:** In case of fire, toxic and corrosive gases may be formed.

**Special precautions for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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## 6. Accidental Release Measures

**Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Measures for environmental protection:** Keep away from drains.

**Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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## 7. Handling and Storage

**Precautions for safe handling:** Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.

**Conditions for safe storage:** Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage. The stop solution do not store in corrodible metal and provide acid-resistant floor.

## 8. Exposure Controls / Personal Protection

### Control parameters:

Substance	Sulfuric acid
Type of exposure limit	Threshold limit value (Germany 2009)
Exposure limit	0.1 mg/m <sup>3</sup> determined as respirable aerosol fraction
Momentary value	0.2 mg/m <sup>3</sup> determined as respirable aerosol fraction
Maximum exposure limit	exceeding factor 1, 15 min (mean), 4x/shift, 1 hour interval

**Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

**Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

**Eye/face protection:** Wear approved safety goggles.

**Skin/hand protection:** Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body protection:** Wear suitable protective clothing as protection against splashing or contamination.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

**Respiratory protection:** In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Component name	Appearance	Odor	Boiling Point	pH	Rel. Density	Melting Point	VAPOUR PRESSUR	Solubility in Water
Antigen-coated microplate	white/clear, plastic plate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Calibrator	blue, liquid	n/a	~100 °C	6.0 – 7.4	n/a	n/a	n/a	complete
HRP-Antibody conjugate	Red, liquid	n/a	~100 °C	6.2 – 7.2	n/a	n/a	n/a	complete
10X Wash buffer	clear, colourless solution	n/a	~100 °C	6.2 – 7.2	n/a	n/a	n/a	complete
Sample Diluent	blue, liquid	n/a	~100 °C	6.0 – 7.4	n/a	n/a	n/a	complete

TMB substrate	clear, colourless solution	n/a	n/a	3.3 – 3.8	n/a	n/a	n/a	complete
STOP solution	clear, colourless solution	n/a	~100 °C	< 1	n/a	n/a	n/a	complete

## 10. Stability and Reactivity

	Stop solution	Others
<b>Chemical Stability:</b>	Stable under recommended storage conditions	
<b>Conditions to avoid:</b>	Thermal stress.	Components of the product are stable. Under the specified storage conditions no degradation or polymerization will occur.
<b>Materials to Avoid:</b>	Strong bases.	When handled according to the intended use no hazardous reactions are to be expected.
<b>DANGEROUS DECOMPOSITION PRODUCTS:</b>	Under the specified storage and handling conditions no dangerous decomposition products are formed. In the case of fire, dangerous decomposition products (carbon oxides, nitric oxides, sulfuric oxides) may occur.	

## 11. Toxicological Information

### 0.5 M H<sub>2</sub>SO<sub>4</sub>:

#### ACUTE TOXICITY:

##### **LD/LC50 VALUES RELEVANT FOR CLASSIFICATION:**

Quantitative data on the toxicity of this product are not available. **Irritation:** May cause irritation of the respiratory system.

#### PRIMARY IRRITANT EFFECT:

##### **ON THE SKIN:**

Irritant to skin and mucous membranes.

##### **ON THE EYES:**

Irritant.

##### **AFTER INHALATION:**

Irritant to skin and mucous membranes.

##### **SENSITIZATION:**

No sensitizing effects known.

#### CMR EFFECTS:

##### **GERM CELL MUTAGENICITY:**

No information available.

##### **CARCINOGENICITY:**

No information available.

##### **REPRODUCTIVE TOXICITY:**

No information available.

#### ASPIRATION HAZARD:

No aspiration toxicity classification.

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**SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:**

The mixture is not classified as specific target organ toxicant, single exposure.

**SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:**

The mixture is not classified as specific target organ toxicant, repeated exposure.

**ADDITIONAL TOXICOLOGICAL INFORMATION:**

We have no description of any toxicological symptoms.

**FURTHER INFORMATION**

The product should be handled with the care usual when dealing with chemicals. **Ingestion:** May cause irritations in mouth or throat.

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**12. Ecological Information**

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**0.5 M H<sub>2</sub> SO<sub>4</sub> :****TOXICITY****AQUATIC TOXICITY:**

Quantitative data on the ecological effect of this product are not available.

**PERSISTENCE AND DEGRADABILITY**

No further relevant information available.

**BIOACCUMULATIVE POTENTIAL**

No further relevant information available.

**MOBILITY IN SOIL**

No further relevant information available.

**ECOTOXICAL EFFECTS:****REMARK:**

Water hazard class 1 (German Regulation) (Self-assessment) – Do not allow to enter waters, sewers or soil.

**RESULTS OF PBT AND VPVB ASSESSMENT**

**PBT:** Not applicable.

**VPVB:** Not applicable.

**OTHER ADVERSE EFFECTS**

No further relevant information available.

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**13. Disposal Considerations**

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**Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.

**Contaminated packaging:** Dispose in the same manner as unused product.

**Special precautions:** Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

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**14. Transport Information**

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**Land transport ADR/RID (cross-border)**

Remarks: No dangerous good in sense of this transport regulation.

**Inland shipping ADN:**

Remarks: No dangerous good in sense of this transport regulation.

**Maritime transport IMDG:**

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Marine pollutant: No

Remarks: No dangerous good in sense of this transport regulation.

**Air transport ICAO-TI and IATA-DGR:**

Remarks: No dangerous good in sense of this transport regulation.

**Transport/Additional information:**

Not dangerous according to the above specifications.

This product is part of a kit. Information in this section refers to the kit as a whole.

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## 15. Regulatory Information

	CAS No.	R-Phrases	S-Phrases	EC-Number
Sulfuric acid	7664-93-9	35	26, 36/37/39, 45	231-639-5
Tetramethylbenzidine	54827-17-7	36/37/38	36	259-364-6

**R-phrase index**

**R35** Causes burns

**R36/37/38** Irritating to eyes, respiratory system and skin.

**S-phrase index**

**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).

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## 16. Other Information

**Only trained personal should handle this product. All actions should be done in accordance with legal regulations and common practised hygiene measures in the labs. Read the instruction for use (IFU) carefully.**

**Safety Phrases:** In case of contact with eyes, rinse immediately with plenty of water and see medical advice.

**Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Data compared to the previous version altered.**

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