

## Safety Data Sheet

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: AKR-5134  
 Product Name: Bisphenol A Competitive ELISA Kit  
 Recommended Use: Laboratory Research Reagents

**MANUFACTURER:**

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### SECTION 2. HAZARDS IDENTIFICATION

Anti-BPA Antibody (500X) (Part No. 51341C): One 10 µL vial of anti-BPA Antibody.

**Classification:**

Acute toxicity, Oral, Category 2 (H300)  
 Acute toxicity, Dermal, Category 1 (H310)  
 Specific target organ toxicity - repeated exposure, Oral, Category 2 (H373)  
 Acute aquatic toxicity, Category 1 (H400)  
 Chronic aquatic toxicity, Category 1 (H410)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> Fatal if swallowed or in contact with skin (H300 + H310), May cause damage to organs (Brain) through prolonged or repeated exposure if swallowed (H373), Very toxic to aquatic life with long lasting effects (H410),</p>	
<p><b>Precautionary Statements:</b> Do not breathe dust/fume/gas/mist/vapors/spray (P260), Do not get in eyes, on skin, or on clothing (P262), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: immediately call</p>	

a POISON CENTER / doctor. Rinse mouth (P301 + P310 + P330), IF ON SKIN: gently wash with plenty of soap and water. Immediately call a POSON CENTER or doctor (P302 + P350 + P310), Get medical advice/attention if you feel unwell (P314), Take off contaminated clothing and wash before reuse (P362), Collect spillage (P391), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

Assay Diluent (Part No. 310804): One 50 mL bottle

10X Wash Buffer (Part No. 310806): One 100 mL bottle

**Classification:**

Acute toxicity, Oral, Category 2 (H300)


Acute toxicity, Inhalation, Category 2 (H330)

Acute toxicity, Dermal, Category 1 (H310)

Specific target organ toxicity - repeated exposure, Oral, Category 2 (H373)

Acute aquatic toxicity, Category 1 (H400)

Chronic aquatic toxicity, Category 1 (H410)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> Fatal if swallowed, in contact with skin or if inhaled (H300 + H310 + H330), May cause damage to organs through prolonged exposure (H373), Very toxic to aquatic life with long lasting effects (H410).</p>	
<p><b>Precautionary Statements:</b> Do not breathe dust/fume/gas/mist/vapors/spray (P260), Do not get in eyes, on skin, or on clothing (P262), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), Wear respiratory protection (P284), IF SWALLOWED: immediately call a POISON CENTER / doctor. Rinse mouth (P301 + P310 + P330), IF ON SKIN: gently wash with plenty of soap and water. Immediately call a POSON CENTER or doctor (P302 + P350 + P310), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), Get medical advice/attention if you feel unwell (P314), Take off contaminated clothing and wash before reuse (P362), Collect spillage (P391), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).</p>	


Stop Solution (Part No. 310808): One 12 mL bottle

**Classification:**

Corrosive to metals, Category 1 (H290)

Skin corrosion, Category 1A (H314)

Serious eye damage, Category 1 (H318)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314).</p>	
<p><b>Precautionary Statements:</b> Keep only in original container (P234), Wash skin thoroughly after handling (P264), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), Absorb spillage to prevent material damage (P390), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

BPA Standard (Part No. 435002): (Part No. 51342C): One 50 µL vial of 150 µM BPA.

BPA Conjugate (500X) (Part No. 51343C): One 25 µL vial.


**Classification:**

Acute toxicity, Oral, Category 1 (H300)

Acute toxicity, Inhalation, Category 2 (H330)

Acute toxicity, Dermal, Category 1 (H310)

Carcinogenicity, Category 1B (H350)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> May cause an allergic skin reaction (H317). Causes serious eye damage (H318). May cause respiratory irritation (H335). May damage fertility or the unborn child (H360).</p>	
<p><b>Precautionary Statements:</b> Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray (P261). Use only outdoors or in a well-ventilated area (P271). Contaminated work clothing must not be allowed out of the workplace (P272). Wear protective gloves/ protective clothing/ eye protection/ face protection (P280). IF ON SKIN: Wash with plenty of soap and water (P302 + P352). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell (P304 + P340 + P312). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor (P305 + P351 + P338 + P310). IF exposed or concerned: Get medical advice/ attention (P308 + P313). If skin irritation or rash occurs: Get medical advice/ attention (P333 + P313). Wash contaminated clothing before reuse (P363). Store in a well-ventilated place. Keep container tightly closed (P403 + P233). Store locked up (P405). Dispose of contents/ container to an approved waste disposal plant (P501).</p>	

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Anti-BPA Antibody (500X) (Part No. 51341C): One 10 µL vial of anti-BPA Antibody.

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Azide	0.1%	26628-22-8

Assay Diluent (Part No. 310804): One 50 mL bottle

10X Wash Buffer (Part No. 310806): One 100 mL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Thimerosal	0.02%	54-64-8

Stop Solution (Part No. 310808): One 12 mL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Sulfuric Acid	0.5 N	7664-93-9

BPA Standard (Part No. 435002): (Part No. 51342C): One 50  $\mu$ L vial of 150  $\mu$ M BPA.

CHEMICAL NAME	CONCENTRATION	CAS #
Bisphenol A	150 $\mu$ M	80-05-7

BPA Conjugate (500X) (Part No. 51343C): One 25  $\mu$ L vial.

CHEMICAL NAME	CONCENTRATION	CAS #
BPA Protein Adduct	< 400 $\mu$ M	N/A

#### SECTION 4. FIRST-AID MEASURES

- General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- In case of skin contact Wash off with soap and plenty of water. Consult a physician.
- In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
- If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Special hazards arising from the substance or mixture Carbon oxides
- Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

- Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## **SECTION 7. SAFETY HANDLING AND STORAGE**

- Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing vapor.
- Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

## **SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- Components with workplace control parameters: Contains no substances with occupational exposure limit values.
- Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. 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. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
- Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. 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 such as NIOSH (US) or CEN (EU).

- Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form: crystalline
- Colour: beige
- Odor: odorless
- Odour Threshold: No data available
- pH: no data available
- Melting point/freezing point Melting point/range: 158 - 159 °C (316 - 318 °F) - lit.
- Initial boiling point and boiling range: 220 °C 428 °F at 5 hPa - lit.
- Flash point: 227 °C (441 °F) at ca.1,013 hPa - closed cup
- Evaporation rate: No data available
- Flammability (solid, gas): No data available
- Upper/lower flammability or explosive limits: No data available
- Vapour pressure: No data available
- Vapour density: No data available
- Relative density: 1.2 g/cm<sup>3</sup> at 25 °C (77 °F)
- Water solubility: 0.298 g/l at 25 °C (77 °F) - OECD Test Guideline 105 – soluble
- Partition coefficient: n-octanol/water log Pow: 3.4 at 21.5 °C (70.7 °F)
- Auto-ignition temperature: 510 °C (950 °F) at 1,013 hPa
- Decomposition temperature: No data available
- Viscosity: No data available
- Explosive properties: No data available
- Oxidizing properties: No data available
- Dissociation constant > = 11.3

## **SECTION 10. STABILITY AND REACTIVITY**

- Reactivity: No data available
- Chemical stability: Stable under recommended storage conditions.
- Possibility of hazardous reactions: No data available
- Conditions to avoid: No data available
- Incompatible materials: Strong bases, Strong oxidizing agents
- Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

- Acute toxicity
  - Sodium Azide: no data available
  - Thimerosal: LD50 Oral 75 mg/kg (rat); LD50 Subcutaneous 98 mg/kg (rat)
  - Sulfuric Acid: LD50 Oral 2.140 mg/kg (rat); LC50 Inhalation 2 hr, 510 mg/m<sup>3</sup> (rat)

- BPA: LD50 Oral - Rat - male and female - > 2,000 - 5,000 mg/kg; Inhalation: Irritating to respiratory system. LD50 Dermal - Rabbit - 6,400 mg/kg
- Skin corrosion/irritation
  - Sodium Azide: no data available
  - Thimerosal: no data available
  - Sulfuric Acid: Extremely corrosive and destructive to tissue (rabbit)
  - BPA: Skin - Rabbit Result: No skin irritation - 4 h
- Serious eye damage/irritation
  - Sodium Azide: no data available
  - Thimerosal: Mild eye irritation (rabbit)
  - Sulfuric Acid: Severe eye irritation (rabbit)
  - BPA: Eyes – Rabbit; Result: Causes serious eye damage.
- Respiratory or skin sensitization:
  - Sodium Azide: no data available
  - Thimerosal: prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
  - Sulfuric Acid: no data available
  - BPA: Local lymph node assay (LLNA) – Mouse; Result: negative
- Germ cell mutagenicity:
  - BPA: Ames test Escherichia coli/Salmonella typhimurium; Result: negative  
Mutagenicity (mammal cell test): chromosome aberration. Chinese hamster ovary cells; Result: negative (ECHA) In vitro mammalian cell gene mutation test: Mouse lymphoma test; Result: negative (ECHA) Mouse - male and female - Bone marrow; Result: negative (ECHA)
- Carcinogenicity:
  - BPA; IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
- Reproductive toxicity: BPA may damage fertility
- Specific target organ toxicity - single exposure: BPA Inhalation - May cause respiratory irritation. - Respiratory system
- Specific target organ toxicity - repeated exposure: No data available
- Aspiration hazard: No data available
- Additional Information: RTECS: SL6300000
- Systemic effects: BPA Headache, Dizziness, Drowsiness, agitation, CNS disorders, Unconsciousness, respiratory arrest Damage to: Kidney Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice. Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence



## SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
  - Sodium Azide: no data available, harmful to aquatic life with long lasting effects.
  - Thimerosal: no data available
  - Sulfuric Acid: LC50 42 mg/L in 96 hrs (mosquito fish); mortality NOEC 19.5 mg/L in 96 hrs (rainbow trout); mortality LOEC 4.6 mg/L in 8 days (fathead minnow); growth inhibition LOEC 2.68 mg/L in 6 days (algae)
- Persistence and degradability
  - BPA: Biodegradability aerobic - Exposure time 28 d; Result: 89 % - Readily biodegradable. (OECD Test Guideline 301F)
- Bioaccumulative potential
  - BPA: Bioaccumulation *Cyprinus carpio* (Carp) - 42 d - 0.015 mg/l(Bisphenol A) Bioconcentration factor (BCF): 20 - 67
- Mobility: no data available
- Results of PBT and vPvB assessment
  - BPA: PBT/vPvB assessment: not available as chemical safety assessment not required/not conducted
- Biodegradation: no data available
- Bioaccumulation: no data available

## SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

## SECTION 14. TRANSPORT INFORMATION - IATA

- Hazard Class: 8
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN2796

NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

## SECTION 15. REGULATORY INFORMATION

- BPA:
  - SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
  - SARA 313: Components The following components are subject to reporting levels established by SARA Title III, Section 313: Bisphenol A CAS-No. 80-05-7 Revision Date 2007-03-01
  - SARA 311/312 Hazards Acute Health Hazard, Chronic Health Hazard Massachusetts Right To Know Components No components are subject to the
  - Massachusetts Right to Know Act.



- Pennsylvania Right To Know Components Bisphenol A CAS-No. 80-05-7 Revision  
Date 2007-03-01

## **SECTION 16. OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

Revised 01/09/2020