Safety Data Sheet

1. Product and Company Information

Product name **: Ez ELISA TMB**
TMB solution
Product code **: WSE-7145**

Company Information
Company name : ATTO Corporation
address : 111-0041 3-2-2 Motoasakusa, Taito-ku, Tokyo
Head Office Customer Service Group
Phone number : 03-5827-4861
Emergency Contact : 03-5827-4863
Usage: For research use only

2. Hazards identification

GHS Classification: None
Label elements: None
Signal word: None
Hazard symbols: None
Health Hazards: Not hazardous
Environmental hazards: Not hazardous
Hazard statement: Not applicable
Note: Not applicable
Other hazards: Not applicable

3. Composition, ingredient information

Single product/mixture classification: Mixture

TMB solution			
Chemical name	wt(%)	Formula	CAS No.
3,3',5,5'-tetramethylbenzidine	0.1%>	C16H20N2	54827-17-7

4. First aid measures

If inhaled : Move to a location with fresh air, keep the victim at rest and warm, and have the victim gargle thoroughly. Get medical attention.

Skin contact : Wash with plenty of water and soap. If irritation occurs, seek medical attention.

If in eyes : Immediately flush with plenty of clean water for at least 15 minutes. Seek medical attention immediately.

If swallowed : Drink plenty of water, induce vomiting, and seek medical attention immediately.

---

5. Fire Prevention Measures

Extinguishing media : Powder, foam, dry sand, water (spray)

Specific hazards in fire

: During a fire, irritating or toxic fumes (or gases) will be generated, so wear appropriate protective equipment to avoid inhaling smoke when extinguishing the fire.

Specific extinguishing methods : Cut off the source of combustion and extinguish the fire with a fire extinguishing agent. Move any movable containers to a safe place immediately. If the container cannot be moved, cool the surrounding area with water spray.

Protection for firefighters : Firefighting should be done from the windward side to avoid inhaling toxic gases. Always wear protective equipment and, if necessary, respiratory protection.

---

6. Measures to be taken in the event of a leak

Personal precautions, protective equipment and emergency procedures

: If indoors, ensure thorough ventilation of the area until the treatment is complete.

Erect barriers or ropes around the affected area to prevent unauthorized entry. Wear appropriate personal protective equipment to avoid skin contact and inhalation of dust or gases. Always work from the upwind side and evacuate personnel from the downwind area.

Environmental precautions : Take care not to discharge spilled products into rivers etc. and cause environmental impact. Take care not to discharge contaminated waste liquid into the environment without proper treatment.

Recovery and neutralization : Do not use fire. Absorb the gas with a cloth or reduce pressure, then recover it in an empty container, then rinse with plenty of water. Always wear protective equipment when working.

---

7. Handling and storage precautions

Handling

Technical measures : No open flames, high temperatures, sparks, or contact with strong oxidizing agents.

Take sufficient precautions against contact with the human body. Wear protective equipment such as safety glasses and gloves to prevent contact. Wash thoroughly with soap after handling.

Precautions : Do not handle the container roughly, such as tipping it over, dropping it, subjecting it to impact or dragging it.

Be careful not to leak, overflow, or splash, and do not generate steam or mist unnecessarily. Keep container tightly closed after use.

After handling, wash your hands, face, etc. thoroughly and gargle.

Eating, drinking and smoking are prohibited except in designated areas.

Gloves and other contaminated protective equipment should not be brought into rest areas.

Safe handling precautions : Wear appropriate protective equipment to avoid inhalation and contact with eyes, skin, and clothing.

Use local exhaust ventilation in indoor workplaces where this product is handled.

storage

Appropriate storage conditions : Store in a dark place away from direct sunlight. Keep tightly sealed to avoid contact with air. Keep away

from flammable materials.

Technical measures : Store in a well-ventilated place in a tightly sealed container. Do not store near fire sources.

Safe container packaging materials : polypropylene, polyethylene, glass
Use containers made of sturdy, inert materials.

---

8. Exposure Controls and Personal Protection

Facility measures : When used in an indoor workplace, seal off the source or install a local exhaust system.
Provide safety showers and hand/face washing facilities near handling areas and clearly indicate their locations.

Control concentration, working environment evaluation criteria
: Not set

Permitted Concentration

ACGIH TLV(s)	: Not set
Japan Society for Occupational Health	: Not set
Biological Exposure Index	: Not established

Protective equipment

Respiratory protection	: Protective mask
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: protective boots, protective clothing

---

9. Physical and Chemical Properties

Physical state

Shape	: liquid
Color	: Faint blue
Odor	: None
pH	: No data available

A specific temperature/temperature range where a physical state changes

Boiling point	: No data available
Boiling range	: No data available
Melting point	: No data available
Flash point	: None
Ignition point	: No data available
Explosive properties	: None

Vapor pressure	: No data available
Vapor density	: No data available
Density	: No data available
Solubility	: No data available
Octanol/water partition coefficient	: No data
Other data	: None

10. Stability and Reactivity

Stability	: Stable under normal handling conditions.
Reactivity	: No particular dangerous reactivity at room temperature.
Conditions to avoid	: sunlight, heat, sparks, static electricity and other sources of ignition.
Hazardous decomposition products	: Carbon monoxide, nitrogen oxides

11. Toxicological information

Acute toxicity	: No information available
Local effects	: No information available

12. Environmental impact information

Mobility	: No data
Persistence/degradability	: No data available
Bioaccumulation	: No data available
Ecotoxicity	: No data available
Environmental standards	: No data available

13. Disposal Considerations

Residual waste	: Entrust it to a specialized waste disposal company approved by the prefectural governor.
Contaminated containers/packaging	:Wash with plenty of water and dispose of according to the type of container.

14. Transportation Precautions

UN Number : Not applicable
Hazard Class : Not applicable
Packing Group : Not applicable
Environmental Hazards : Not applicable
Specific safety measures and conditions of transport

Before transporting, check that the container is not damaged, corroded, or leaking. Load the container carefully to prevent it from falling over, dropping, or being damaged, and take measures to prevent the load from shifting.

---

15. Applicable Law

Chemical Substances Management Promotion Act : Not applicable
Industrial Safety and Health Act : Not applicable
Poisonous and Deleterious Substances control act: Not applicable
Chemical Substances Control Law : Not applicable
Fire Service Act : Not applicable
Aviation Law : Not applicable
Other laws : None

---

1. Product and Company Information

Product name : **Ez ELISA TMB**
STOP solution

Product code : **WSE-7145**

Company Information

Company name : ATTO Corporation

address : 111-0041 3-2-2 Motoasakusa, Taito-ku, Tokyo

Head Office Customer Service Group

Phone number : 03-5827-4861

Emergency Contact : 03-5827-4863

Usage: For research use only

2. Hazards identification

GHS Classification:

Serious skin burns and eye damage	Category 1
Serious eye damage	category 1
Respiratory damage risk	category 2

GHS label elements:

After warning: Danger

Hazard statement: H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H371 May cause damage to respiratory system

Precautions - (Safety precautions): Wash face, hands, and exposed skin after handling.
Do not eat, drink or smoke when using this product.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves, clothing, glasses, and face protection.

Precautions - (First aid): If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a physician immediately.

If on skin or hair, immediately remove all contaminated clothing and wash skin with water or in the shower. Wash contaminated clothing before reuse.
If inhaled, remove to fresh air and have person rest in a position comfortable for breathing.
If swallowed, rinse mouth. Do not induce vomiting. If you feel unwell, contact a poison center or doctor.

Precautions - (Storage): Close container tightly and store in a cool, dark place.

Precautionary Statement - (Disposal): Dispose of contents and container at an approved waste disposal site.

3. Composition, ingredient information

Single product/mixture classification: Mixture

STOP solution			
Chemical name	wt(%)	Formula	CAS No.
Phosphoric Acid	10%>	H3O4P	7664-38-2

4. First aid measures

If swallowed	Rinse mouth. Do not induce vomiting.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If it comes into contact with the skin (or hair)	Immediately take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eye Contact	Rinse carefully with water for several minutes, then remove contact lenses if present and easy to do, then continue rinsing.
If you have been exposed or are concerned about exposure	Call a physician.

5. Fire Prevention Measures

Extinguishing media : Use extinguishing methods appropriate to the local situation and surrounding environment.

Specific hazards in fire: Thermal decomposition may release irritating and toxic gases and vapors.

Specific Fire Fighting Methods: No information available

Protection for firefighters : Firefighting should be done from the windward side to avoid inhaling toxic gases. Always wear protective equipment and, if necessary, respiratory protection.

6. Measures to be taken in the event of a leak

Personal precautions, protective equipment and emergency procedures : If indoors, ventilate the area thoroughly until treatment is complete. Stretch ropes around the area where the leak occurred to prevent unauthorized entry. Wear appropriate protective equipment when working to prevent splashes from coming into contact with the skin and inhalation of dust and gas. Work from upwind and evacuate people downwind.

Environmental precautions : Take care not to discharge spilled product into rivers etc. and cause environmental impact. Take care not to discharge contaminated waste liquid into the environment without proper treatment.

Containment and Cleanup Methods :Absorb with dry sand, soil, sawdust, rags, etc. and collect in an empty container. Always wear protective equipment when working.

7. Handling and storage precautions

Handling

Technical measures : Avoid contact with alkaline substances.
Avoid contact with metals and metal ions.

Precautions : Do not handle the container roughly, such as tipping it over, dropping it, subjecting it to impact or dragging it.

Be careful not to leak, overflow, or splash, and do not generate steam or mist unnecessarily. Keep container tightly closed after use.
After handling, wash your hands, face, etc. thoroughly and gargle.
Eating, drinking and smoking are prohibited except in designated areas.
Gloves and other contaminated protective equipment should not be brought into rest areas.

Safe handling precautions : Wear appropriate protective equipment to avoid inhalation and contact with eyes, skin, and clothing.

storage

Appropriate storage conditions : Store in a cool, dark place. Keep tightly sealed to avoid contact with air.

Safe container packaging materials : polypropylene, polyethylene, glass
It is recommended that TMB solution be stored in a light-proof container.

---

8. Exposure Controls and Personal Protection

Facility measures : When used in an indoor workplace, seal off the source or install a local exhaust system.
Provide safety showers and hand/face washing facilities near handling areas and clearly indicate their locations.

Control concentration, working environment evaluation criteria
: Not set

Permitted Concentration

ACGIH TLV(s) : Not set

Japan Society for Occupational Health : Not set

Biological Exposure Index : Not established

Protective equipment

Respiratory protection : Protective mask

Hand protection : Protective gloves

Eye protection : Safety glasses

Skin and body protection : protective boots, protective clothing

---

9. Physical and Chemical Properties

Physical state

Shape	: liquid
Color	: transparent
Odor	: No data
pH	: No data available

A specific temperature/temperature range where a physical state changes

Boiling point	: No data available
Boiling range	: No data available
Melting point	: No data available
Flash point	: None
Ignition point	: No data available
Explosive properties	: None
Vapor pressure	: No data available
Vapor density	: No data available
Density	: No data available
Solubility	: No data available
Octanol/water partition coefficient	: No data
Other data	: None

10. Stability and reactivity

Stability	: Stable under normal handling conditions.
Reactivity	: No particular dangerous reactivity at room temperature.
Conditions to avoid	: sunlight, heat, light, alkaline substances, metals and metal ions.
Hazardous decomposition products	: Phosphorus oxides

11. Toxicological information

Acute toxicity	: No information available
Local effects	: No information available

12. Environmental impact information

Mobility	: No data
Persistence/degradability	: No data available
Bioaccumulation	: No data available
Ecotoxicity	: No data available
Environmental standards	: No data available

---

13. Disposal Considerations

Residual waste : Entrust it to a specialized waste disposal company approved by the prefectural governor.

Contaminated containers/packaging : Wash with plenty of water and dispose of according to the type of container.

---

14. Transportation Precautions

Item	: Description
Substance Name	: Phosphoric Acid
UN Number	: UN 1805
Hazard Class	: Class 8 (Corrosive substances)
Packing Group	: >25% concentration. Typically not classified as dangerous goods (subject to confirmation)

Proper Shipping NamePhosphoric Acid

Applicable Regulations : ADR (Europe), IMDG Code (maritime), IATA (air transport), and national regulations (e.g., Fire Services Act, Industrial Safety and Health Law in Japan)

Specific safety measures and conditions of transport

Before transporting, check that the container is not damaged, corroded, or leaking. Load the container carefully to prevent it from falling over, dropping, or being damaged, and take measures to prevent the load from shifting.

---

15. Applicable Law

Chemical Substances Management Promotion Act : Not applicable

Industrial Safety and Health Law : Hazardous and harmful substances requiring notification of their names, etc. (Article 57-2 of the Law, Enforcement Order Article 18-2, Attached Table 9, No. 618

Poisonous and Deleterious Substances Control Act : Not applicable

Chemical Substances Control Law : 1-422

Fire Service Act : Not applicable

Aviation Law : Corrosive substances (Enforcement Regulations Article 194, Hazardous Materials Notification, Appendix 1)

Other laws : Marine Pollution Prevention Law Enforcement Order Appendix 1 Harmful Liquid Substances Class Z

REACH Regulation (EU)

Phosphoric acid is registered under REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) in the EU. It is not currently subject to authorization or restriction, but safety data and exposure scenarios must be provided for industrial use.

OSHA (USA)

According to OSHA's Hazard Communication Standard (29 CFR 1910.1200), phosphoric acid must be labeled and handled in accordance with its corrosive properties.

---

16. Other

This Safety Data Sheet (SDS) is based on the latest information and data available at this time and may be revised based on new knowledge. The precautions in the SDS are intended for normal handling. If the product user handles the product in a special way, they should take safety measures appropriate for the intended use and method of use.

Although we take great care in providing information on SDS, we do not guarantee the content.