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MATERIAL SAFETY DATA SHEET

Prod. No.: **A31300401**

Name: **ASP direct cELISA**

Hazards identified with this product are those associated with the following components. Refer to the material safety data sheets for the listed items.

Component name:

Plates precoated with DA-protein conjugate
Phosphate buffered saline (PBS) with Tween 20
Domoic acid standard
TMB peroxidase substrate

Multiple component spill or leak procedures

Steps to be taken if material is released or spilled

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
Absorb on inert absorbent and place in closed containers for disposal.
Ventilate area and wash spill site after material pickup is complete.

Waste disposal method

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state and local environmental regulations.

Label precautionary statements

May be harmful by inhalation, ingestion or skin absorption.
Irritating to eyes, respiratory system and skin.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
In case of contact with skin, wash immediately with soap and plenty of water.
Wear suitable protective clothing, gloves and eye/face protection.
Do not breathe dust.

Other information

For research use only, not for human or veterinary clinical use.

The above information is correct to the best of our knowledge, but does not purport to be all inclusive and shall be used only as a guide. Biosense Laboratories AS shall not be held liable for any damage resulting from handling or from contact with the above product.

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Version 2: SW 28.09.12

Supersedes version of (date): Version 1 (13.06.03)

Reason for alteration: Review

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MATERIAL SAFETY DATA SHEET

Plates precoated with DA-protein conjugate

Section 1. Chemical Identification

Product name: Plates precoated with DA-protein conjugate.

Section 2. Composition/ Information on Ingredients

Hazardous Components:
Domoic acid CAS #14277-97-5

Section 3. Hazards Identification

May be harmful if inhaled, ingested or absorbed through skin.

Section 4. First Aid Measures

In case of skin contact, immediately wash skin with soap and plenty of water.
If inhaled remove to fresh air. In severe cases, obtain medical attention.
If swallowed, give large amounts of water and induce vomiting if person is conscious. Obtain medical attention.
In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes. Obtain medical attention.

Section 5. Fire Fighting Measures

Extinguishing media
Compatible with foam, dry powder, carbon dioxide.
Hazardous combustion products:
Not applicable.
Special firefighting procedures
As in any fire, wear self-contained breathing apparatus and protective clothing.

Section 6. Accidental Release Measures

Sweep up, place in a bag and hold for waste disposal.
Wash spill site after material pickup is complete.

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:

- Avoid contact with skin and eyes.
- Avoid inhalation.
- Avoid ingestion.
- Avoid prolonged or repeated exposure.
- Do not reuse this container.
- Wash hands thoroughly after handling.

Section 8. Exposure controls/Personal protection

Ventilation:

Good general ventilation should be sufficient to control airborne levels.

Eye Protection:

Safety glasses.

Protective Gloves:

Disposable gloves.

Other Protective Clothing:

Lab coat.

Work/Hygienic/Maintenance Practices:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section 9. Physical and Chemical Properties

Appearance and odour: Solid (96 well plate), odourless.

Section 10. Stability and Reactivity

Stability:

Normally stable under conditions of use and storage.

Hazardous decomposition products:

Carbon monoxide, carbon dioxide and nitrogen oxide.

Hazardous polymerization:

Will not occur.

Section 11. Toxicological information

To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. The following refers to the hazardous ingredient(s) of the product. Other harmful effects cannot be excluded.

LD₅₀: 3.6 mg/kg (i.p. mouse) (pure domoic acid).

Acute effects: Harmful if swallowed, inhaled or absorbed through skin.
May cause irritation.
May cause nervous system disturbances.

Section 12. Ecological information

Data not yet available.

Section 13. Disposal considerations

Dispose in accordance with local, state and federal regulations.

Section 14. Transport information

Contact Biosense Laboratories AS for transportation information.

Section 15. Regulatory information

CAUTION: Substance not yet fully tested.

Section 16. Other information

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MATERIAL SAFETY DATA SHEET

Phosphate buffered saline (PBS) with Tween 20

Section 1. Chemical Identification

Product name: Phosphate buffered saline (PBS) with Tween 20.

Section 2. Composition/ Information on Ingredients

CAS #: None

Hazardous ingredients

Sodium chloride,	CAS # 7647-14-5
Sodium phosphate, dibasic,	CAS # 7558-79-4
Potassium phosphate, monobasic	CAS # 7778-77-0
Potassium chloride	CAS # 7447-40-7
Tween 20	CAS # 9005-64-5

Section 3. Hazards Identification

May be harmful by inhalation, ingestion or skin absorption.
Irritating to eyes, respiratory system and skin.

Section 4. First Aid Measures

If swallowed, wash out mouth with water, provided person is conscious.
Call a physician.
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
In case of skin contact, immediately wash skin with soap and copious amounts of water.
In case of contact with eyes, flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.
Call a physician.

Section 5. Fire Fighting Measures

Extinguishing media:

Noncombustible.

Use extinguishing media appropriate to surrounding fire conditions.

Special fire-fighting procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards:

Emits toxic fumes under fire conditions.

Section 6. Accidental Release Measures

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

Sweep up, place in a bag and hold for waste disposal.

Avoid raising dust.

Ventilate area and wash spill site after material pickup is complete.

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:

Avoid contact with eyes, skin, and clothing.

Avoid inhalation.

Avoid ingestion.

Avoid prolonged or repeated exposure.

Wash hands thoroughly after handling.

Keep tightly closed.

Store in a cool dry place.

Section 8. Exposure controls/Personal protection

Ventilation:

Mechanical exhaust required.

Eye Protection:

Safety glasses.

Protective Gloves:

Compatible chemical-resistant gloves.

Other Protective Clothing:

Lab coat .

NIOSH/MSHA-approved respirator.

Work/Hygienic/Maintenance Practices:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section 9. Physical and Chemical Properties

Appearance and odor: Solid, odourless.

Section 10. Stability and Reactivity

Stability:

Stable.

Incompatibilities:

Strong oxidising agents.

Strong acids.

Hazardous combustion or decomposition products:

Nature of decomposition products not known.

Hazardous polymerization:

Will not occur.

Section 11. Toxicological information

Acute effects:

May be harmful by inhalation, ingestion or skin absorption.

Causes eye irritation.

Causes skin irritation.

Material is irritating to mucous membranes and upper respiratory tract.

To the best of our knowledge, the chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

Section 12. Ecological information

Data not yet available.

Section 13. Disposal considerations

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state and local environmental regulations.

Section 14. Transport information

Contact Biosense Laboratories AS for transportation information.

Section 15. Regulatory information

European information

CAUTION: Substance not yet fully tested.

Irritant.

R 36/37/38

Irritating to eyes, respiratory system and skin.

S 26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36

Wear suitable protective clothing.

Section 16. Other information

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MATERIAL SAFETY DATA SHEET

Domoic acid standard

Section 1. Chemical Identification

Product name: Domoic acid standard.

Section 2. Composition/ Information on Ingredients

Hazardous Components:	CAS #	Concentration
Acetonitrile	75-05-8	10% (in water)
Domoic acid	14277-97-5	100 ng / mL

Section 3. Hazards Identification

May be harmful if inhaled or ingested.
Contact may cause skin or eye irritation.

Section 4. First Aid Measures

In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing and place it in the open air. Wash clothing before reuse.
In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes. Obtain medical attention.
If inhaled remove to fresh air. In severe cases, obtain medical attention.
If swallowed, give large amounts of water and induce vomiting if person is conscious. Obtain medical attention.

Section 5. Fire Fighting Measures

Extinguishing media:

Compatible with foam, dry powder, carbon dioxide.

Hazardous combustion products:

Not applicable.

Special firefighting procedures:

As in any fire, wear self-contained breathing apparatus and protective clothing.

Unusual fire and explosions hazards:

Emits toxic fumes under fire conditions.

Section 6. Accidental Release Measures

Wipe with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent and transport to safe open area for atmospheric evaporation.

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:
Avoid contact with eyes, skin, and clothing.
Avoid inhalation of vapours.
Avoid ingestion.
Avoid prolonged or repeated exposure.
Do not reuse this container.
Wash hands thoroughly after handling.

Section 8. Exposure controls/Personal protection

Ventilation:
Good general ventilation should be sufficient to control airborne levels.
Eye Protection:
Safety glasses.
Protective Gloves:
Disposable gloves.
Other Protective Clothing:
Lab coat.
Work/Hygienic/Maintenance Practices:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section 9. Physical and Chemical Properties

Appearance and odour: Clear, colourless liquid with a slight ether-like odour.
Specific gravity: 0.98

Section 10. Stability and Reactivity

Stability:
Normally stable under conditions of use and storage.
Incompatibilities:
Strong oxidising agents .
Strong acids.
Strong bases.
Hazardous combustion or decomposition products:
Hydrogen cyanide, carbon monoxide, carbon dioxide and nitrogen oxide.
Hazardous polymerization:
Will not occur.

Section 11. Toxicological information

To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. The following refers to the hazardous ingredients of the product. Other harmful effects cannot be excluded.

LD₅₀: 3.6 mg/kg (i.p. mouse) (pure domoic acid)
3800 mg/kg (oral rat) (pure acetonitrile)

Eye contact: Harmful and irritating.

Skin contact: Harmful and irritating. Risk of skin absorption

Inhalation: Harmful.

Inhalation of acetonitrile may cause pulmonary edema and cyanosis. Other symptoms include headache, nausea, vomiting, dizziness, weakness, rapid ineffective breathing, low blood pressure, loss of consciousness or convulsions.

Ingestion: Harmful.

Ingestion of domoic acid may cause nausea, headache, vomiting, and abdominal cramps and may be fatal. Neurological symptoms caused by domoic acid include confusion, memory loss and disorientation.

Chronic exposure: Serious damage to central nervous system, impaired vision, liver and kidney damage, anemia and lung irritation. Delirium, convulsions, paralysis and coma.

Section 12. Ecological information

Data not yet available.

Section 13. Disposal considerations

Dispose in accordance with local, state and federal regulations.

Section 14. Transport information

Contact Biosense Laboratories AS for transportation information.

Section 15. Regulatory information

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Section 16. Other information

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MATERIAL SAFETY DATA SHEET

TMB peroxidase substrate

Section 1. Chemical Identification

Product name: TMB peroxidase substrate.

Section 2. Composition/ Information on Ingredients

CAS #: None

Hazardous ingredients:

3, 3', 5, 5'-tetramethylbenzidine CAS # 54827-17-7

Section 3. Hazards Identification

May be harmful by inhalation, ingestion or skin absorption.
Contact may cause eye or skin irritation.

Section 4. First Aid Measures

If swallowed, induce vomiting and consult a physician.
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
In case of skin contact, immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.
In case of contact with eyes, flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.
Consult a physician.

Section 5. Fire Fighting Measures

Extinguishing media:

Water spray.

Carbon dioxide, dry chemical powder or appropriate foam.

Special fire-fighting procedures:

No special measures required. As in any fire, wear self-contained breathing apparatus and protective clothing.

Unusual fire and explosions hazards:

Emits toxic fumes under fire conditions.

Section 6. Accidental Release Measures

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
Absorb on inert absorbent (sand or vermiculite) and place in closed containers for disposal.
Ventilate area and wash spill site after material pickup is complete.

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:

Avoid contact with eyes, skin, and clothing.
Avoid inhalation of vapours.
Avoid ingestion.
Avoid prolonged or repeated exposure.
Do not reuse this container.
Wash hands thoroughly after handling.
Keep tightly closed.
Store at 2-8°C, protect from light and keep lid closed tightly.

Section 8. Exposure controls/Personal protection

Ventilation:

Local exhaust.

Eye Protection:

Safety glasses.

Protective Gloves:

Rubber or vinyl gloves.

Other Protective Clothing:

Lab coat.

Cotton filter mask.

Work/Hygienic/Maintenance Practices:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section 9. Physical and Chemical Properties

Appearance: Clear to light yellow liquid.

Specific gravity: 1.01

Section 10. Stability and Reactivity

Stability:

Stable.

Incompatibilities:

Strong oxidising agents, metals.

Hazardous combustion or decomposition products:

Carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous polymerization:

Will not occur.

Section 11. Toxicological information

Acute effects:

May be harmful by inhalation, ingestion or skin absorption.

Contact may cause skin or eye irritation.

Material may be irritating to mucous membranes and upper respiratory tract.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological information

Data not yet available.

Section 13. Disposal considerations

Normal disposal with copious amounts of water.

Observe all federal, state and local environmental regulations.

Section 14. Transport information

Contact Biosense Laboratories AS for transportation information.

Section 15. Regulatory information

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Section 16. Other information

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