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MATERIAL SAFETY DATA SHEET

Prod. No. : **V01004402**

Name: **Rainbow trout Vitellogenin ELISA-kit**

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:

Phosphate buffered saline (PBS) with Tween 20
Dilution buffer, concentrated 10×
Ellman's reagent

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.

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

Do not allow to enter drinking water supplies, waste water or soil.

Avoid raising dust.

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.

Wear suitable protective clothing, gloves and eye protection.

Do not breathe dust.

Other information

The above information is believed to be correct 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 01.10.12

Supersedes version of: LO 23.01.04

Reason for alteration: Rewiev of MSDS

Chganges in Section: None

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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:

Non-combustible.

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 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 odour: Solid tablet, 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

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

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MATERIAL SAFETY DATA SHEET

Dilution buffer, 10×

Section 1. Chemical Identification

Product name: Dilution buffer, concentrated 10×

Section 2. Composition/ Information on Ingredients

Hazardous Components (Specific Chemical Identity / Common Name)	CAS #	Percentage
Potassium phosphate, dibasic	7758-11-4	13.3
Potassium phosphate	7778-77-0	3.21
Sodium azide (NaN ₃)	26628-22-8	0.5
Sodium chloride	7647-14-5	24.15
Water	7732-18-5	

Section 3. Hazards Identification

Harmful if swallowed.
Contact may cause skin or eye irritation.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 4. First Aid Measures

If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. If inhaled remove to fresh air. In severe cases, obtain medical attention.
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Section 5. Fire Fighting Measures

Extinguishing media

Use alcohol foam, carbon dioxide, or water spray

Unusual fire and explosions hazards:

Emits toxic fumes under fire conditions (NOx).

Special firefighting procedures

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

Section 6. Accidental Release Measures

Absorb the liquid and scrub the area with detergent and water.

Hold waste for waste disposal

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:

Avoid breathing (dust, vapor, mist, gas)

Avoid contact with eyes, skin, and clothing.

Do not reuse this container.

Use with adequate ventilation.

Wash 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:

Latex disposable gloves

Other Protective Clothing:

Lab coat

Work/Hygienic/Maintenance Practices:

Do not take internally.

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:

A clear colourless solution

pH:

7.4

Section 10. Stability and Reactivity

Stability:

Stable

Hazardous combustion or decomposition products:

NO_x

Hazardous polymerization:

Will not occur

Section 11. Toxicological information

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

After inhalation: Irritating to the nose, throat and respiratory tract

After eye contact: Irritation

After skin contact: Irritation. Risk of skin absorption

After ingestion: Risk of absorption.

Systemic effects: cardiovascular disorders, CNS-disorders, diarrhoea, tiredness. Toxic effects on kidneys.

Section 12. Ecological information

Quantitative data about ecological effects of this product is not yet available. The following refers to the toxic ingredient(s) of the product:

Harmful for aquatic organisms.

May cause long-term adverse effects in the aquatic environment

Do not allow to enter drinking water supplies, waste water, or soil.

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

European information

CAUTION: Substance not yet fully tested

Symbol: Xn

R-phrases: R 22-52/53

Harmful by ingestion

Harmful for aquatic organisms.

May cause long-term adverse effects in the aquatic environment

S-phrases: S 61

Avoid release to the environment.

Refer to special instructions/Safety data sheets.

Section 16. Other information

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Changes in Section: 9

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MATERIAL SAFETY DATA SHEET

Ellman's Reagent

Section 1. Chemical Identification

Product name: Ellman's Reagent

Section 2. Composition/ Information on Ingredients

Hazardous Components (Specific Chemical Identity / Common Name)	CAS #	Percentage
5,5'-Dithiobis-(2-nitrobenzoic acid)	69-78-3	10.164
Acetylthiocholine iodide	1866-15-5	5.082
Sodium chloride	7647-14-5	28.799
Potassium phosphate, dibasic	7758-11-4	45.062
Potassium phosphate	7778-77-0	10.893

Section 3. Hazards Identification

Health Hazards (Acute and Chronic):

Causes eye and skin irritation.

Irritating to the mucous membranes and the upper respiratory tract.

The toxicological properties of this compound have not been fully evaluated.

Carcinogenicity: NTP? No , IARC Monographs? No , OSHA Regulated? No

Signs and Symptoms Of Exposure:

Irritating to the nose, throat and respiratory tract.

Hazard Label Information:

Avoid contact with skin and eyes.

Do not reuse this container.

Use with adequate ventilation.

Wash thoroughly after handling.

Section 4. First Aid Measures

If inhaled remove to fresh air.

If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

If swallowed, wash out mouth with water provided person is conscious.

Never give anything by mouth to an unconscious person. Get medical attention.

In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Section 5. Fire Fighting Measures

Extinguishing media

Use alcohol foam, carbon dioxide, or water spray

Special firefighting procedures

As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear.

Unusual fire and explosions hazards:

Emits toxic fumes under fire conditions.

Section 6. Accidental Release Measures

Vacuum or sweep up material and place in disposal container.

After removal, flush contaminated area thoroughly with water.

Section 7. Handling and Storage

Precautions To Be Taken in Handling and Storing:

Avoid breathing (dust, vapor, mist, gas).

Avoid contact with eyes, skin, and clothing.

Do not reuse this container.

Keep away from food and drinking water.

Store at correct temperature.

Store away from oxidizers.

Use with adequate ventilation.

Wash 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:

Latex disposable gloves

Other Protective Clothing:

Lab coat

Work/Hygienic/Maintenance Practices:

Do not take internally.

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: A lyophilized powder

Section 10. Stability and Reactivity

Stability:

Stable

Incompatibilities-Materials to avoid:

oxidizing materials

strong bases

Hazardous decomposition or byproducts:

carbon dioxide

carbon monoxide

nitrogen oxides

sulfur oxides

hydrogen iodide

Hazardous polymerization:

Will not occur

Section 11. Toxicological information

Acute effects:

May be harmful by inhalation, ingestion, or skin absorption.

Causes eye and skin irritation.

Irritating to mucous membranes and upper respiratory tract.

To the best of our knowledge, the toxicological properties of this compound have not been fully investigated.

Section 12. Ecological information

Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

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

European information

CAUTION: Substance not yet fully tested

Irritant.

R 36/37/38

Irritating to eyes, respiratory system and skin.

S 22

Do not breathe dust

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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Changes in Section: 12