

SAFETY DATA SHEET

VERSION 5.0 | REVISED: 2026-09-22

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Name: Enzyme-Linked Immunosorbent Assay Kit

1.2 Catalog Number: EKF ELISA Kit Series

1.3 Recommended Use: For Laboratory Research Use Only. Not for human or animal therapeutic or clinical diagnostic use.

1.4 Company Identification: Biomatik Corporation, 4 Third Ave, Kitchener, Ontario, N2C 1N6, Canada

1.5 Contact Telephone / Email: 1-519-489-7195 | Email: info@biomatik.com

1.6 Emergency Telephone Number: 1-519-590-7717

2. HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]:

2.1 Kit Sub-Component Overview Table

Component Items	Physical Form	Hazardous Ingredient	Concentration	CAS No.
Biotinylated Detection Ab/Ag	Odorless and colorless, liquid	ProClin 300	0.05%	96118-96-6
Assay diluent	Odorless and colorless, liquid	ProClin 300	0.05%	96118-96-6
HRP Conjugate	Odorless and colorless, liquid	ProClin 300	0.05%	96118-96-6
Standard	Odorless and white/faint yellow clear powder/solid	ProClin 300	0.05%	96118-96-6
Substrate	Odorless and colorless, liquid	Hydrogen Peroxide (H ₂ O ₂)	0.1%	7722-84-1
Stop solution	Slight pungent and colorless, liquid	Sulfuric acid (H ₂ SO ₄)	2N (2%)	7664-93-9

2.2 GHS Label Elements & Precautionary Statements

Signal Word: WARNING

GHS Pictogram: [!] Exclamation Mark

Hazard Statements:

May cause an allergic skin reaction.



Causes skin irritation.

Causes serious eye irritation.

Precautionary Statements:

P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The kit consists of individual aqueous solutions and solid components. Chemical ingredients are detailed below:

Chemical Name	CAS No.	EINECS No.	% Concentration
Water	7732-18-5	231-791-2	96.34%
Sodium chloride	7647-14-5	231-598-3	0.8%
Disodium hydrogenorthophosphate	7558-79-4	231-448-7	0.12%
Potassium chloride	7447-40-7	231-211-8	0.02%
Potassium dihydrogen orthophosphate	7778-77-0	231-913-4	0.02%
Tween20	9005-64-5	500-018-3	0.05%
BSA	9048-46-8	—	0.2%
Proclin 300	96118-96-6	—	0.05%
Sulfuric acid (H ₂ SO ₄)	7664-93-9	231-639-5	2%
Hydrogen Peroxide (H ₂ O ₂)	7722-84-1	231-765-0	0.1%
Citric acid	77-92-9	201-069-1	0.2%
3,3',5,5'-Tetramethylbenzidine	54827-17-7	259-364-6	0.1%

4. FIRST AID MEASURES

Consult a physician. Show this safety data sheet to the doctor in attendance. First aid personnel should ensure self-protection.

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

In Case of Skin Contact: Take off contaminated clothing and shoes immediately. 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.

If Swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical, carbon dioxide or appropriate foam. For small fires, use media such as 'alcohol' foam, dry chemical or carbon dioxide. For large fires, apply water from as far as possible. Use large quantities of water applied as a mist or spray. Solid streams of water may be ineffective. Cool affected containers with flooding quantities of water.

5.2 Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen chloride gas.

5.3 Special precautions for fire-fighters: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

6.1 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. Evacuate personnel to safe areas.

6.2 Measures for environmental protection: Prevent further leakage or spillage if safe to do so. Do not let enter drains. Discharge into the environment must be avoided.

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

7. HANDLING AND STORAGE

7.1 Safe Handling Precautions: Wear appropriate protective clothing and safety gloves. Avoid inhalation. Avoid contact with eyes, skin and clothing. Mechanical exhaust required. Keep away from ignition sources, heat and flame. No smoking at the working site. Incompatibilities: Strong oxidizing agents, Strong acids. Handling and unloading should be light to prevent packaging broken, damp and cause losses. Working place should be equipped with appropriate varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

7.2 Conditions for safe storage: Store in 2-8°C. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame. Keep away from sources of ignition. Incompatible: Strong oxidizing agents, Strong acids. Storage place should be equipped with appropriate varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering Controls: Mechanical exhaust required. Safety shower and eye bath.

- **Respiratory Protection:** Government-approved respirator if needed.

- **Eye / Face Protection:** Chemical safety goggles if needed.
- **Hand / Skin Protection:** Protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the 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 according to the concentration and amount of the substance at the workplace.
- **Hygiene Measures:** No smoking, drinking and eating at working site. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Proclin 300	Sulfuric acid (H ₂ SO ₄)	Hydrogen Peroxide (H ₂ O ₂)
Appearance	Liquid	Colorless Liquid	Colorless liquid
Odor	No data available	Pungent	Odorless or ozone-resembling
pH	4.1 at 100 g/L	~1	Weak acid (4.3 - 5.1)
Melting / Freezing Point	-40°C	No data available	-0.43°C
Boiling Point / Range	189°C	No data available	126°C
Flash Point	118°C - closed cup	No data available	Non-flammable
Flammability (solid, gas)	No data available	No data available	Noncombustible Liquid / Oxidizer
Vapor Pressure	No data available	No data available	23.3 mm Hg (30°C)
Relative Density	1.03 g/cm ³	No data available	1.11 g/mL at 20°C
Water Solubility	Soluble	Soluble	>= 100 mg/mL at 72°F

10. STABILITY AND REACTIVITY

10.1 Reactivity: No data available.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No data available.

10.4 Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials: Strong oxidizing agent, Light sensitive, Alcohols, Organic materials, Heavy metals, Powdered metals, Strong reducing agents, Amines, Mercaptans.

10.6 Hazardous decomposition products: Other decomposition products: No data available. Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

11.1 Proclin 300:

- **Acute Toxicity:** LD50 Oral - Rat - 862 mg/kg; LD50 Dermal - Rabbit - 2,800 mg/kg
- **Skin Corrosion / Irritation:** Skin - Rabbit: Corrosive.
- **Serious Eye Damage / Irritation:** Eyes - Rabbit: Corrosive to eyes.
- **Sensitisation:** Guinea pig: May cause sensitisation by skin contact.
- **Carcinogenicity:** No component present at $\geq 0.1\%$ is identified as probable, possible or confirmed human carcinogen by IARC.

11.2 Sulfuric acid (H₂SO₄):

- **Acute Toxicity:** LD50 Oral - Rat - 1530 mg/kg; LD50 Dermal - Rabbit - 2730 mg/kg; LC50 Inhalation - Rat - 850 mg/m³ 1h. Ingestion: May be harmful if swallowed. Causes burns.
- **Skin Corrosion / Irritation:** Can cause severe burns.
- **Serious Eye Damage / Irritation:** Can cause severe burns. Eye contact: Causes eye burns.
- **Aspiration Hazard:** Can cause severe burns if aspirated.

11.3 Hydrogen Peroxide (H₂O₂):

- **Carcinogenicity:** There is inadequate evidence in humans for the carcinogenicity of hydrogen peroxide. Overall evaluation: Not classifiable as to its carcinogenicity to humans (Group 3).
- **STOT - Single Exposure:** The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion. The vapour is severely irritating to the respiratory tract. Exposure may produce oxygen bubbles (embolism) in the blood, resulting in shock.
- **STOT - Repeated Exposure:** Repeated or chronic inhalation of the vapour may cause chronic inflammation of upper respiratory tract. Lungs may be affected. May result in hair bleaching.

12. ECOLOGICAL INFORMATION

12.1 Proclin 300 Ecotoxicity: No data available.

12.2 Sulfuric acid (H₂SO₄) Ecotoxicity: No data available.

12.3 Hydrogen Peroxide (H₂O₂) Toxicity: Toxicity to fish, daphnia, algae, and microorganisms: No data available.

13. DISPOSAL CONSIDERATION

13.1 Disposal methods: Dispose of waste in accordance to applicable national, regional, or local regulations. Burn in a chemical incinerator equipped with an afterburner and scrubber (highly flammable). Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

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

14. TRANSPORT INFORMATION

RID/ADR: This substance is considered to be non-hazardous for transport.

IATA: Non-Hazardous for Air Transport.

IMO: Non-Hazardous for Sea Transport.

15. REGULATORY INFORMATION

This material safety data sheet complies with the requirements of (EC) No. 1907/2006 (REACH), Annex II, as amended, and Regulation (EC) No. 1272/2008 (CLP) and their amendments.

15.1 Proclin 300 - US Federal and State Regulations:

SARA 313, SARA 311/312, CERCLA RQ, California Prop. 65: Not applicable.

15.2 Hydrogen Peroxide (H₂O₂) - US Federal and State Regulations:

SARA 313: Not subject to reporting. SARA 311/312: No acute, chronic, fire, pressure, or reactive hazard. Clean Water Act / California Prop 65: Not applicable.

15.3 Sulfuric acid (H₂SO₄) - US Federal and State Regulations:

SARA 313: CAS 7664-93-9, Weight 2%, Threshold 1.0. Clean Water Act: Reportable Quantity 1000 lb. California Prop. 65: Listed as Carcinogen (Weight 2%).

16. OTHER INFORMATION

16.1 Intended Use Notice: This material is sold for in vitro use and lab research purposes only. It is not for any human or animal therapeutic or clinical diagnostic use.

16.2 Disclaimer: The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Biomatik Corporation makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.

End of Safety Data Sheet