

SAFETY DATA SHEET

Section 1: Identification

Product Identifier: Pre-coated ELISA Kit Assay (Product code containing #ES symbols)

Relevant Identified Uses of Substance or Mixture and Uses Advised Against:

Recommended Use: For Research Use Only

Uses Advised against: No information

Company:

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Section 2: Hazard(s) Identification

Chemical Name	Physical form	Hazardous	Concentration	CAS#
Biotinylated Detection Ab/Ag	Odorless and colorless, liquid	Proclin 300	0.04%	55965-84-9
Assay diluent	Odorless and colorless, liquid	Proclin 300	0.04%	55965-84-9
HRP Conjugate	Odorless and colorless, liquid	Proclin 300	0.04%	55965-84-9
Standard	Odorless and white/faint yellow Clear powder/ solid	Proclin 300	0.04%	55965-84-9
Substrate	Odorless and colorless, liquid	Carbamide peroxide(CP)	0.05%	124-43-6
		3,3',5,5'-tetramethylbenzidine	0.005%	54827-17-7
Stop solution	Slight pungent and colorless, liquid	Sulfuric acid (H ₂ SO ₄)	9.8%	7664-93-9

2.1. Hazard Classification

Proclin 300

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]
 Sensitization, skin- Category 1

Signal Word(s): WARNING

Hazard Statements:

H317: May cause an allergic skin reaction.

Pictograms: Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

**Precautionary Statements:**

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

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

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

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P333+313: If skin irritation or rash occurs: Get medical advice/attention.

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

Description of other hazards: None known.

Sulfuric acid (H₂SO₄)

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

Skin Corrosion/Irritation- Category 2

Serious eye damage/eye irritation- Category 2A

Signal Word(s): WARNING

Hazard Statements:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Pictograms: Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

**Precautionary Statements:**

P264: Wash hands thoroughly after handling.

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

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact.

Description of other hazards: None known.

Carbamide peroxide (CP)

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

3,3',5,5'-tetramethylbenzidine

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Section 3: Composition/ Information on Ingredients

Chemical Name	CAS#	EC#
Sodium chloride	7647-14-5	231-598-3
Potassium chloride	7447-40-7	231-211-8
Disodium phosphate dodecahydrate	10039-32-4	231-448-7
Potassium dihydrogen phosphate	7778-77-0	231-913-4
Tris	77-86-1	201-064-4
EDTA	60-00-4	200-449-4
Glycerol	56-81-5	200-289-5
Tween 20	9005-64-5	500-018-3
Protective protein	9048-46-8	232-936-2
Mannitol	69-65-8	200-711-8
PVP40	9003-39-8	-
Proclin 300	55965-84-9	-
Carbamide peroxide(CP)	124-43-6	204-701-4
Sulfuric acid (H ₂ SO ₄)	7664-93-9	231-639-5
3,3',5,5'-tetramethylbenzidine	54827-17-7	259-364-6
N,N-Dimethylformamide (DMF)	68-12-2	200-679-5
Sodium tetraphenylborate	143-66-8	205-605-5

Section 4: First-Aid Measures

4.1. General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

4.2. Skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

4.3. Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

4.4. Inhalation

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

4.5. Swallowing/Ingestion

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

Section 5: Fire-Fighting Measures**5.1. Suitable extinguishing agents**

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 protective equipment for firefighters

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

5.3. Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen chloride gas.

Section 6: Accidental Release Measures**6.1. Personal 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

Contain spillage, and then collect with non-combustible absorbent material (e.g., sand, diatomaceous earth, vermiculite). Place in a container for disposal according to local regulations. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1. Advice Handling

- 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 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. Storage conditions

- Store in cool place. 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.

Section 8: Exposure Controls/Personal Protection

8.1. Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

8.2. Body protection

Wear suitable protective clothing according to the concentration and amount of the substance at the workplace.

8.3. Breathing equipment

Government approved respirator if needed.

8.4. Protection of hands/skin

Protective 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.

8.5. Eye/face protection

Chemical safety goggles if needed.

8.6. Other protection

No smoking, drinking and eating at working site. Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

9.1. Information about the physical and chemical properties of the product

Proclin 300

- **Appearance:** Liquid
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** 4.1 at 100 g/L
- **Melting point/melting range:** -40°C
- **Boiling point/boiling range:** 189°C
- **Flash point:** 118°C - closed cup
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** No data available
- **Vapor density:** No data available
- **Relative density:** 1.03 g/cm³
- **Solubility in/Miscibility with water:** Soluble
- **Partition coefficient:** No data available
- **Decomposition temperature:** No data available
- **Viscosity:** No data available
- **Explosive properties:** No data available

Sulfuric acid (H₂SO₄)

- **Appearance:** Colorless Liquid
- **Odor:** Pungent
- **Odor threshold:** No data available
- **pH:** ~1
- **Melting point/melting range:** No data available
- **Boiling point/boiling range:** No data available
- **Flash point:** No data available
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available

- **Danger of explosion:** No data available
- **Vapor pressure:** No data available
- **Vapor density:** No data available
- **Relative density:** No data available
- **Solubility in/Miscibility with water:** Soluble
- **Partition coefficient:** No data available
- **Decomposition temperature:** No data available
- **Viscosity:** No data available
- **Explosive properties:** No data available

Carbamide peroxide (CP)

- **Appearance:** White crystalline
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** No data available
- **Melting point/melting range:** 90 - 93 °C - lit.
- **Boiling point/boiling range:** No data available
- **Flash point:** Non-flammable
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** 23.3 mm Hg (30°C)
- **Vapor density:** No data available
- **Relative density:** 1.390 g/cm³ at 20 °C
- **Solubility in/Miscibility with water:** No data available
- **Partition coefficient:** No data available
- **Decomposition temperature:** > 60 °C
- **Viscosity:** No data available
- **Explosive properties:** No data available
- **Oxidizing properties:** The substance or mixture is classified as oxidizing with the category
- **Other safety information:** Bulk density 0.6 - 0.7 g/L

3,3',5,5'-tetramethylbenzidine

- **Appearance:** Liquid
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** No data available
- **Melting point/melting range:** 168-171 °C - lit.
- **Boiling point/boiling range:** 168 - 169 °C
- **Flash point:** No data available
- **Evaporation rate:** No data available
- **Flammability:** No data available

- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** No data available
- **Vapor density:** No data available
- **Relative density:** No data available
- **Solubility in/Miscibility with water:** Insoluble
- **Partition coefficient:** No data available
- **Decomposition temperature:** No data available
- **Viscosity:** No data available
- **Explosive properties:** No data available
- **Oxidizing properties:** No data available

Section 10: Stability and Reactivity

10.1. Information about the stability and reactivity

- **Reactivity:** No data available.
- **Chemical stability:** Stable under recommended storage conditions .
- **Conditions to avoid:** Heat, flames and sparks.
- **Incompatible materials:** Strong oxidizing agent, Light sensitive, Alcohols, Organic materials, Heavy metals, Powdered metals, Strong reducing agents, Amines, Mercaptans.
- **Possibility of hazardous reactions:** No data available.
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions (Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas).

Section 11: Toxicological Information

11.1. Proclin 300

Acute toxicity:

- **Skin:** Corrosive Serious eye damage/eye irritation (Rabbit).
- **Eye:** Corrosive to eyes (Rabbit).
- **Respiratory or skin sensitization:** May cause sensitization by skin contact (Guinea Pig).
- **LD₅₀ – Oral:** Rat- 862 mg/kg.
- **LD₅₀ – Dermal:** Rabbit- 2,800 mg/kg.

Chronic effects:

- **Carcinogenic effects:** 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.

11.2. Sulfuric acid (H₂SO₄)

Acute toxicity:

- **Skin:** May be harmful if absorbed through skin. Can cause severe burns.
- **Eye:** Can cause severe burns.
- **Ingestion:** May be harmful if swallowed. Causes burns.
- **Inhalation:** Causes burns.
- **Respiratory or skin sensitization:** No data available
- **LD₅₀ – Oral:** Rat- 1530 mg/kg.
- **LD₅₀ – Dermal:** Rabbit- 2,730 mg/kg.
- **LD₅₀ – Inhalation:** Rat- 850 mg/m³ 1h.

Chronic effects:

- **Carcinogenic effects:** No data available.
- **Germ cell mutagenicity:** No data available.
- **Reproductive toxicity:** No data available.
- **Aspiration hazard:** Can cause severe burns.

11.3. Carbamide peroxide (CP)

Acute toxicity:

- **LD₅₀:** 4060 mg/kg (skin-rat)

Chronic effects:

- **Carcinogenic effects:** 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.

11.4. 3,3',5,5'-tetramethylbenzidine

Acute toxicity:

- **Skin:** No data available.
- **Eye:** No data available.
- **Respiratory or skin sensitization:** No data available.
- **LD₅₀ – Oral:** No data available.
- **LD₅₀ – Dermal:** No data available.
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Chronic effects:

- **Carcinogenic effects:** No data available.
- **Germ cell mutagenicity:** No data available.
- **Reproductive toxicity:** No data available
- **Germ cell mutagenicity:** Mutation in mammalian somatic cells (mouse)
- **Aspiration hazard:** Can cause severe burns.

Section 12: Ecological Information

12.1. Ecotoxicity

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

12.2. Mobility

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

12.3. Biodegradation

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

12.4. Bioaccumulation

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

12.5. Results of PBT and vPvB assessment

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

12.6. Other adverse effects

- **Proclin 300:** No data available.
- **Sulfuric acid (H₂SO₄):** No data available.
- **Carbamide peroxide (CP):** No data available.
- **3,3',5,5'-tetramethylbenzidine:** No data available.

Section 13: Disposal Considerations

13.1. Waste 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 b 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.

Section 14: Transport Information

- **ADR/RID** Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.
- **IATA Class:** Non-Hazardous for Air Transport.
- **IMO Class:** : Non-Hazardous for Sea Transport.

Section 15: Regulatory Information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008 and its amendments.

Section 16: Other Information

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Last reviewed: 07/2025

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****End Of MSDS****