Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

ELISA Kit Assay (Product code containing #ES symbols)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommend use For research use only

Uses advised against No information available

1.3 Supplier Identification

Assay Genie
25 Windsor Place
Dublin 2
Ireland
+353 15639720

For further information please contact: ***techsupport@assaygenie.com***

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Kit Component	Physical Form	Hazardous Ingredient	Concentration	CAS No.
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	Slightly Pungent and Colorless, Liquid	Sulfuric Acid (H_2SO_4)	9.8%	7664-93-9

2. HAZARD STATEMENT

2.1 Proclin 300

2.1.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP].

Sensitization, skin - Category 1

2.1.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Signal Word: WARNING

Hazard Statements:

H317: May cause an allergic skin reaction.

Precaution Statement(s):

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

2.2 Sulfuric acid (H_2SO_4)

2.2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP].

Skin Corrosion/Irritation - Category 2

Eye Irritation - Category 2A

2.2.2 Label Elements

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

Signal Word: WARNING

Hazard Statement(s):

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Precaution Statement(s):

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.

P332+313: If skin irritation occurs: Get medical advice/attention.

P337+313: If eye irritation persists: Get medical advice/attention.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P362+364 Take off contaminated clothing and wash it before reuse.

2.3 Carbamide peroxide (CP)

2.3.1 Classification of the substance or mixture

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

2.3.2 Label Elements

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

2.4 3,3',5,5'-tetramethylbenzidine

2.4.1 Classification of the substance or mixture

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

2.4.2 Label Elements

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

Section 3: Composition/information on ingredients

Ingredient	CAS No.	EC No.
Sodium chloride	7647-14-5	231-598-3
Potassium chloride	7447-40-7	231-211-8
Disodium phosphate dodecahydrate 1	10039-32-4	231-448-7
Potassium dihydrogen phosphate 7	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
Tween20	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 (H2SO4)	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 Description of first aid measures

General Advice Consult a physician. Show this safety data sheet to the doctor in attendance.
Inhalation If breathed in, move person into fresh air. If not breathing give artificial respiration.
Skin contact Take off contaminated clothing and shoes immediately. Wash off with soap and water
Eye contact Rinse thoroughly with water for at least 15 minutes and consult a physician.
Swallowed Do NOT induce vomiting. Rinse mouth with water (never to an unconscious person).

Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Suitable: 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

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

5.3 Advice for fire-fighters

Special protective equipment for fire-fighters

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

gear. **Section 6: Accidental release**

measurements

6.1 Personal precautions

Use personal protective equipment.

Avoid contact with the skin and the eyes.

Evacuate personnel to safe areas.

Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods for containment

Prevent further leakage orspillage if safe to do so

6.4 Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material (eg. 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. 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 fire fighting 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 fire fighting equipment and leakage emergency treatment equipment.

Section 8: Exposure controls/personal protection

7.3 Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

7.4 Personal Protective Equipment

Respiratory: Government approved respirator if needed.
Eye/face: Chemical safety goggles if needed.
Clothing: Wear appropriate protective clothing.
Hand/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.
Body protection: Wear suitable protective clothing according to the concentration and amount of the substance at the workpl**ace.**

7.5 Other Protect

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

Section 9: Physical and Chemical Properties

9.1 Proclin 300

Appearance: Liquid
Odour: No data available
Odour threshold: No data available
pH 4.1 at 100 g/L
Melting point/freezing point: -40 °C
Initial boiling point and boiling range: 189 °C
Flash point: 118 °C - closed cup
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapour pressure: No data available
Vapour density: No data available
Relative density: 1.03 g/cm3
Water solubility: Soluble Partition coefficient: noctanol/water:
No data available Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available Oxidizing properties: No data available

9.2 Sulfuric acid (H2SO4)

Appearance: Colorless Liquid
Odor: Pungen
Odor threshold: No data available
pH: ~1
Melting point/freezing point: No data available
Boiling point/Boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammablitiy (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor density: No data available
Vapor pressure: No data available
Relative density: No data available
Solubility in/Miscibility with Water: Soluble
Partition coefficient: noctoanol/water: No data available
Auto igniting: No data available
Decomposition temperature: No data available
Viscosity: No data available

9.3 Carbamide peroxide (CP)

Appearance: White crystalline
Odour: No data available
Odour threshold: No data available
pH: No data available
Melting point/freezing point: 90 - 93 °C - lit.
Initial boiling point and boiling range: No data available
Flash point: No data available Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapour pressure: 23.3 mmHg at 30 °C
Vapour density: No data available

Relative density: 1.390 g/cm3 at 20 °C
Water solubility: No data available
Partition coefficient: noctanol/water: No data available
Auto-ignition temperature: 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

9.3 3,3',5,5'-tetramethylbenzidine

Appearance: Liquid
Odor: No data available
Odor Threshold: No data available
pH: No data available Melting point/freezing point: 168-171 °C - lit
Initial boiling point and boiling range: 168 - 169 °C
Flash point: No data available
Evaporation rate: No data available
Flammability (solid,gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative Density: No data available
Water solubility: insoluble
Partition coefficient: octanol/water: No data available
Autoignition temperature: 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 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 (NOx), Sulphur oxides,
Hydrogen chloride gas.

Section 11: Toxicological information

11.1 Proclin 300

Acute toxicity

General advice If symptoms persist, call a physician.
LD50 Oral - Rat - 862 mg/kg
LD50 Dermal - Rabbit - 2,800 mg/kg
Skin corrosion/irritation
Skin - Rabbit Result: Corrosive Serious eye damage/eye irritation
Eyes - Rabbit Result: Corrosive to eyes
Respiratory or skin sensitisation - Guinea pig
Result: May cause sensitisation by skin contact.
Carcinogenicity
IARC: 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

General advice If symptoms persist, call a physician.
LD50 Oral - Rat - 1530 mg/kg
LD50 Dermal - Rabbit - 2730 mg/kg
LC50 Inhalation- Rat - 850 mg/m3 1 h
Skin corrosion/irritation: Can cause severe burns
Serious eye damage/irritation: Can cause severe burns
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
Aspiration hazard: Can cause severe burns
Ingestion: May be harmful if swallowed.
Causes burns.
Skin contact: May be harmful if absorbed through skin. Causes burns.
Eye contact: Causes eye burns.

11.3 Carbamide peroxide (CP)

Acute toxicity

General advice If symptoms persist, call a physician
LD50 = 4060 mg/kg (skin-rat)
Carcinogenicity:
IARC: 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

General advice If symptoms persist, call a physician
Oral: No data available
Inhalation: No data available
Dermal: No data available
Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity
Test Type: Mouse
Test system: lymphocyte
Remarks: Mutation in mammalian somatic cells.
Carcinogenicity: No data available
Reproductive toxicity: No data available
Aspiration hazard: Can cause severe burns

Section 12: Ecological information

12.1 Proclin 300

Ecotoxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment: No data available
Other adverse effects: No data available

12.2 Sulfuric acid (H2SO4)

Ecotoxicity: No data available
Persistence and degradability; No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment; No data available
Other adverse effects: No data available

12.3 Carbamide peroxide (CP)

Ecotoxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment: No data available
Other adverse effects: No data available

***12.4* 3,3',5,5'-tetramethylbenzidine**

Ecotoxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects: 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.

Contaminated packaging Dispose in the same manner as unused product.

Section 14: Transport information

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

This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guild only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislation. The absence of warning must not, under and circumstance be taken to mean that no hazard exists.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End Of MSDS

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