Safety Data Sheet (SDS)

1. Identification of the substance/preparation and of the company/undertaking

Catalog #: EE1001-1 **Product:** Human Neutrophil Elastase (ELA-2) ELISA Kit

This ELISA kit is intended for the in vitro determination of samples for research use only.

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2. Hazards identification

None of the hazardous reagents are present in an amount that qualifies the products as hazardous according to directive 67/548/EEC. However, exposure to large amounts and/or ingestion can potentially be hazardous.

Kit Component	Microplate, 96 precoated or uncoated wells	EIA or MIX Diluent Concentrate (10x)	Standard, Protein, or Substrate	Biotinylated Antibody or Protein	Wash Buffer Concentrate (20x)	Streptavidin-Peroxidase (SP) Conjugate	Chromogen Substrate (TMB)	Stop Solution
Hazard to man (if exposed to large amounts)		X	X	X	X			X
Risk of percutaneous absorption		X	X	X	X		X	X
Hazard to the environment								
Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environments		X	X	X	X			

3. Composition/information on ingredients

This kit contains all or some of the following components: 96-well microplate, EIA Diluent Concentrate (10X), MIX Diluent Concentrate (10X), Standard, Protein, Substrate, Wash Buffer Concentrate (20x), Biotinylated Antibody, Biotinylated Protein, Streptavidin-Peroxidase (SP) Conjugate, Chromogen Substrate (TMB), and Stop Solution. See protocol for full list of reagents.

No individual component contains a hazardous ingredient in an amount that requires labeling. The hazardous ingredients of said components are given below.

Component	Ingredient	Conc.	CAS#	EC#	Classification (of pure ingredient)
EIA/MIX Diluent Concentrate (10x)	Proclin 300 (1-5% CMIT/MIT)	0.04%	55965-84-9	613-167-00-5	Xi; R36/37/38
Wash Buffer Concentrate (20x)	Sodium Azide	0.02%	26628-22-8	247-852-1	T+; R28/R32, N; R50-53
Chromogen Substrate (TMB)	3,3',5,5' - tetramethylbenzidine	5% (w/v) in H_2O	54827-17-7	259-364-6	Xn; R22, N; R51/53
Stop Solution	Hydrochloric acid	0.5 N	7647-01-0	231-595-7	T; R23, C; R35
Biotinylated Antibody	Sodium Azide	0.02%	26628-22-8	247-852-1	T+; R28/R32, N; R50-53
Streptavidin-Peroxidase (SP) Conjugate	Peroxidase Stabilizer (Ethylene Glycol 45-65%)	100%	107-21-1	203-473-3	Xn; R22

4. First aid measures

Inhalation - Move to fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion - Call a physician immediately. Never give anything by mouth to an unconscious person. Rinse mouth. Remove dentures if any. Move exposed person to fresh air. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin Contact - Flush contaminated skin with plenty of water removing all contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Consult a physician.
Eye Contact - Immediately flush eyes with plenty of water for at least fifteen minutes. Check for and remove any contact lenses. Consult a physician.

5. Fire-fighting measures

Suitable extinguishing agents - Use water spray, alcohol resistant foam, or dry powder. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazards from the substance or mixture - In case of fire, toxic and corrosive gases may be formed.
Special precautions for fire fighters - As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions - Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Environmental precautions - Keep away from drains.
Containment and cleaning measures - Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling - Handle in accordance with good industrial hygiene and safety practice.
Storage - Keep containers tightly closed in a dry, cool and well-ventilated place. See individual component labels for appropriate storage conditions.

8. Exposure controls / personal protection

Engineering measures - Ventilation systems, showers, eyewash stations
Eye/face protection - Wear approved safety eyewear.
Skin/body protection - Wear protective gloves and protective clothing.
Respiratory protection - If ventilation is inadequate, use a suitable respirator.

9. Physical and chemical properties

Appearance:	Clear to yellow solutions	**Vapor pressure:**	N/A
pH:	Neutral (Stop Solution is acidic)	**Vapor density:**	N/A
Boiling point:	N/A	**Relative density:**	N/A
Flash point:	N/A	**Solubility:**	Soluble in water
Flammability:	N/A	**Viscosity:**	N/A
Explosive properties:	N/A	**Evaporation rate:**	N/A
Oxidizing properties:	N/A	**Additional parameters:**	N/A

10. Stability and reactivity

Stability - Stable under recommended storage conditions
Reactivity - Azide reacts with many heavy metals such as lead, copper, mercury, silver and gold to form explosive compounds. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive.
Possibility of hazardous reactions - Hazardous reactions will not occur under normal conditions of storage and use.
Incompatible products - Heavy metals, metal halides, chromyl chloride, hydrazine, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile, and acetonitrile.
Hazardous decomposition products - Nitrogen oxides, products formed under fire conditions

11. Toxicological information

Toxicological risks are minor due to small volume of components and the low concentration of hazardous ingredients. Toxicological experiments have not been done on the kit components.

Pierce Peroxidase Conjugate Stabilizer - Acute toxicity
After inhalation - May be harmful after inhalation and irritate the respiratory tract
After swallowing - Harmful if swallowed
After skin contact - Irritation of the skin, danger of skin absorption
After eye contact - May cause eye irritation
Animal toxicological data - LD50 oral, Rat 4700 mg/kg
Human toxicological data - No data available

Sodium Azide - Acute toxicity
Skin corrosion/irritation - No data available
Serious eye damage/eye irritation - No data available
Respiratory or skin sensitization - No data available
Germ cell mutagenicity - No data available
Animal toxicological data - LD50 oral, Rabbit 10 mg/kg
Human toxicological data - No data available

Hydrochloric acid - Acute toxicity
After inhalation - Toxic by inhalation
After swallowing - Harmful if swallowed
After skin contact - Corrosive, causes burns
After eye contact - May cause eye irritation
Animal toxicological data - No data available
Human toxicological data - No data available

12. Ecological information

Ecotoxicity - May affect the acidity of water with risk of harmful effects to aquatic organisms.
Biodegradability - Data unavailable.

13. Disposal considerations

Product disposal - Dispose in accordance with applicable local, regional, or national regulations.
Packaging disposal - Dispose in accordance with applicable local, regional, or national regulations.
Contaminated packaging - Dispose of in same manner as product.

14. Transport information

Regulatory information	UN #	Proper shipping name	Classes	Packaging group
DOT Classification	Not regulated	Not available	Not available	Not available
IATA-DGR Classification	Not regulated	Not available	Not available	Not available

15. Regulatory information

No single component contains a hazardous ingredient in an amount that requires identification and labeling in accordance with EC directives.

16. Other information

For research use only.
For professional use only.

To the best of our knowledge, the information contained herein is accurate. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.