CHROMOGENIX

REAGENT SAFETY DATA SHEET

1. IDENTIFICATION OF PRODUCT AND COMPANY

This Reagent Safety Data Sheet applies to:

Product name	Kit Configuration		Code
COAMATICÒ Plasmin Inhibitor	**Substrate S-2403**	**1 vial**	**823187-63**
	Plasmin Solvent	**1 vial**	
	Buffer stock solution	**2 vials**	
	Plasmin	**1 vial**	

Distributor : **Chromogenix - Instrumentation Laboratory S.p.A. - Viale Monza, 338 - 20128 Milan**
Tel. +39-02-25221 **Fax +39-02-2575250**
+39-02-2522884 **+39-02-2522889**

2 COMPOSITION - Information on ingredients

INGREDIENT NAME	CONCENTRATION PERCENT BY WEIGHT

-Substrate S-2403: Assy hazard classification: (**Xn R 22 S24/25-29-36**)

pyroGlu-Phe-Lys-pNA x HCl 4.3
p-NA Chemically bound to peptide
CAS No. : 100-01-6 (pNA)
EINECS No.: 202-810-1
Hazard Classification: T (as raw material)
Risk Code: R23/24/25-33-52/53
R23/24/25: Toxic by inhalation in contact with skin and if swallowed.
R33: danger of cumulative effect.
R52/53: Harmful to aquatic organism, may cause long-term adverse effects in the aquatic environment.
Safety Code: S 28-36/37-45-61

-Plasmin Solvent: Assy hazard classification: (**24/25-29-36**)

Hydrochloric Acid (37%) 0.006
CAS No.: 7647-01-0
EINECS No.: 231-595-7
Hazard Classification: C (as raw material)
Risk Code: R 34 - 37
R34: causes burns
R37: Irritating to respiratory system
Safety Code: S 26-45

2 COMPOSITION - Information on ingredients

INGREDIENT NAME (ctd.)	CONCENTRATION PERCENT BY WEIGHT	
-Buffer, stock solution:		Assy hazard classification: (**24/25-29-36**)
Tris-hydroxymethyl-aminomethane CAS No.: 77-86-1 EINECS No. : 201-064-4 Hazard Classification: Xi (as raw material) Risk Code: R36-37-38 R36: irritating to eyes R37: irritating to respiratory system R38: irritating to skin Safety Code: S 26 -36	0.6	
Tris-hydroxymethyl-aminomethane hydrochloride CAS No.: 1185-53-1 EINECS No. : 214-684-5 Hazard Classification: Xi (as raw material) Risk Code: R36-37-38 R36: irritating to eyes R37: irritating to respiratory system R38: irritating to skin Safety Code: S 26 -36	6.4	
Methylamine Chloride CAS No.: 593-51-1 EINECS No. : 209-795-0 Hazard Classification: Xi (as raw material) Risk Code: R36-37-38 R36: irritating to eyes R37: irritating to respiratory system R38: irritating to skin Safety Code: S 26 -36	9.4	
-Plasmin:		Assy hazard classification: (**24/25-29-36**)
Human Plasmin (Lyophilized)	8 nkat/vial	
Human Serum Albumin	0.83	
6-Aminocaproic Acid CAS No.: 60-32-2 EINECS No.: 200-469-3 Hazard Classification: Xi (as raw material) Risk Code: R36-37-38 R36: irritating to eyes R37: irritating to respiratory system R38: irritating to skin Safety Code: S 26 -36	0.0009	

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES
Substrate S-2403 / Plasmin Solvent / Buffer / Plasmin : may cause irritation.

SKIN
Substrate S-2403: may be absorbed through the skin with possible systemic effects.
Plasmin Solvent / Buffer / Plasmin: may cause irritation.

INGESTION
Substrate S-2403: may be harmful if swallowed. May cause blood damage with blueness of the lips (cyanosis), strong headache.
Plasmin Solvent / Buffer / Plasmin: may be harmful if swallowed.

INHALATION
Substrate S-2403: May cause blood damage with blueness of the lips (cyanosis), strong headache, nausea, coughing.
Plasmin Solvent / Buffer / Plasmin: may cause irritation to the mucous membranes and upper respiratory tract.

4. FIRST AID MEASURES

EYES
Substrate S-2403 / Plasmin Solvent / Buffer / Plasmin:
in case of eye contact, flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

SKIN
Substrate S-2403 / Plasmin Solvent / Buffer / Plasmin:
wash well with soap and water. Remove contaminated clothing and launder before use. If irritation persists, get medical attention

INGESTION
Substrate S-2403 / Plasmin Solvent / Buffer / Plasmin:
flush mouth with water, without swallowing .Get medical attention or contact the local Poison Control Center.

INHALATION
Substrate S-2403 / Plasmin Solvent / Buffer:
remove the individual to fresh air. If breathing is difficult give oxygen, get medical attention.
Plasmin: none normally required.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT
LOWER EXPLOSIVE LIMIT (%): N/A
UPPER EXPLOSIVE LIMIT (%): N/A

FIRE AND EXPLOSION HAZARDS:
None known.

EXTINGUISHING MEDIA
Use any extinguishing agent which is suitable for the surrounding fire.

FIRE FIGHTING INSTRUCTIONS
Wear self-contained breathing apparatus and protective clothing that is appropriate for fighting a typical fire involving chemical materials.

6. ACCIDENTAL RELEASE MEASURES .

Contain spill by placing a suitable absorbent material around the edges of the spill and work inward. Carefully scoop up into appropriate waste container for disposal.

7. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS

The sealed reagents are stable until the expiration dates shown on the labels when stored at 2-8 °C.

Plasmin

CAUTION: All blood products should be treated as potentially infectious.
Source material from which this product was derived was found negative when tested in accordance with FDA required tests. No known test method can offer assurance that products derived from human blood will not transmit infectious agents. Handle as if capable of transmitting infectious agents.

WORK/HYGIENIC PRACTICES
Wash hands with soap and water after use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls
None normally required.

Eye/Face protection
Safety glasses or splash goggles are recommended.

Skin Protection
Wear rubber or plastic gloves and other protective clothing (lab coat) as required to prevent skin contact.

Respiratory Protection
None normally required with adequate ventilation.

Other/General Protection
None normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

	Substrate S-2403	**Plasmin Solvent**	**Buffer, stock solution**	**Plasmin**
Appearance:	lyophilized powder	liquid	liquid	lyophilized powder
Colour:	white	colourless	colourless	white-yellowish
Odour:	odourless	odourless	odourless	odourless
Density:	N/A	not available	not available	N/A
pH:	not available	2.5-3.5 at 20-25°C	7.3-7.5 at 20-25°C	7.5 at 20-25°C

BASIC PHYSICAL PROPERTIES
VAPOUR PRESSURE: not determined
SPECIFIC GRAVITY: not determined
SOLUBILITY (H20): not determined

10. STABILITY AND REACTIVITY

STABILITY: stable

CONDITIONS TO ALLOW (STABILITY)
See Insert Sheet.

INCOMPATIBLE MATERIALS
-pNA: strong oxidizing agents, strong acids and bases.
-Tris-hydroxymethyl-aminomethane: copper, brass, aluminum and oxidizing materials.
-EDTA: strong oxiding materials.

HAZARDOUS DECOMPOSITION PRODUCTS
-Substrate S-2403 /Plasmin Solvent / Buffer: harmful fumes of oxides of carbon and nitrogen may be formed during thermal decomposition.
-Plasmin: none known.

HAZARDOUS POLYMERIZATION: will not occur

11. TOXICOLOGICAL INFORMATION

MISCELLANEOUS TOXICOLOGICAL INFORMATION

-Tris-hydroxymethyl-aminomethane: orl-rat LD50 5900 mg/kg . No toxic effected noted. (NIOSH).

-pNA: orl-rat LD50 750 mg/Kg; TLV-TWA 3.0 mg/m3; mutagenic data (NIOSH).
Peptide: ivn-mouse LD50 appr. 100mg/kg.

pNA is chemically coupled to the peptide molecule but is cleaved by proteolytic enzyme e.g. trypsin in digestive tract.

-EDTA Na2 x 2H2O: orl-rat LD50 2000 mg/Kg; orl-rbt LD50 2300 mg/Kg; experimental mutagenic and teratogenic data (NIOSH).

-Methylamine Hydrochloride: orl-rat LD50 1600 mg/kg INHTE5 2,29,1990. Data included in the Registry of Toxic Effects of Chemicals Substances (RTECS).

-Hydrochloric Acid 37%: ihl-rat LD50 3124 ppm; orl-rbt LD50 900 mg/kg; TLV-CEILING 7.5 mg/mc; experimental mutagenic and teratogenic data (NIOSH).

The health effects noted above are based on the extrapolation of data on the pure product ingredients. To the best of our knowledge, no health effects have been identified for the product mixture under normal conditions of use, although the health effects of the product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

OTHER ENVIRONMENTAL INFORMATION

pNA: Daphnia Magna : 48 Hr-LC50 = 20-30 ppm, slightly toxic.

Hydrochloric Acid 37%: effect toxic to fish and plankton following to change pH.

Use in accordance with good laboratory practice. Do not waste in the environment.

13. DISPOSAL CONSIDERATIONS

Based on EEC Directive No. 75/442 and 78/319 and following modifications, the product waste is classified as toxic and harmful (pNA).
Dispose of in accordance with local regulations.
Used waste products, surplus products or spillage products shall be disposed of in accordance with national and local laws. It is up to the user to classify the waste correctly prior to disposal.

14. TRANSPORT INFORMATION

None.

15. REGULATORY INFORMATION

This product is classified and labelled in accordance with EEC Directive 88/379 and EEC Directive 91/155 and following modifications. The health hazard classification has been determined based on composition and hazard data of each ingredient.
Physical and health hazard information on the reagent mixture has not been determined.
Any physical and health hazard information noted is based on a) evaluation of data of the pure ingredient and b) concentration of each ingredient.

Kit Hazard Classification

- EEC Symbol: **Xn (Harmful)**
- Risk Code: **R 22:** harmful if swallowed.
- Safety Code: **S24/25 - 29 - 36**
  S24/25: avoid contact with skin and eyes.
  S29: do not empty into drains.
  S36: wear suitable protective clothing.

16. OTHER INFORMATION

REFERENCE DOCUMENTATION
Primary references used in the preparation of this document:
1. Product Specification.
2. Product Insert.

NOTE
The information supplied in this Safety Data Sheet represents the data and best information available at the date of preparation . It is provided with the aim of allowing proper and safe use, storage, transport and disposal of the product. It is not to be considered as a warranty or specification of product quality. It is related to the materials specifically indicated and does not apply if these are used in combination with other materials or during processes not specifically indicated in the text of this Safety Data Sheet.

Rev.	Date	Drawn by
0	September 2000	A. Lavezzari