

ABX Pentra Chloride-E	A91A00661BEN	23/08/2006
------------------------------	---------------------	-------------------

1. Product and company identification	
1.1. Identification of the product	
Product name:	ABX Pentra Chloride-E
Product code:	Ref.ABX: A11A01739
1.2. Company identification	
	HORIBA ABX - Rue du Caducée - Parc Euromédecine 34184 MONTPELLIER CEDEX 4 - FRANCE Tel: (33) 4 67 14 15 16 Fax: (33) 4 67 14 15 17
1.3. Emergency phone number	
	Contact the nearest first-aid station

2. Composition/information on ingredients		
2.1. Description of the kit		
	ELECTRODE : Mixture, solid. Methyl methacrylate (polymer) Silver, lump Butyl rubber mixture Ethylene glycol	60-70% 10-15% 5-10% 1-5%
2.2. Hazardous ingredients (name, concentration)		
2.3. Dangerous preparation according to 67/548/EEC - 99/45/EEC (Yes/No): No		

3. Hazards identification	
Most important hazards:	Partially combustible solid, including liquid in case of being heated at high temperature.
Specific risks	None.

4. First-aid-measures	
Inhalation:	In the case of inhaling a large quantity of vaporised silver, remove the victim from contamination immediately to fresh air, make him gargle with some water and keep him warm and comfortable. Get medical attention immediately.
Skin contact:	In the case of contacting with the upper terminal of the electrode, take off the contaminated clothing, and wash and clean the affected part of body. Get medical attention immediately.
Eye contact:	Immediately wash eyes, also under the eyelids, with water for 15 minutes. Get medical attention immediately.
Ingestion:	Induce vomiting immediately and remove the victim from contamination to fresh air. If not breathing, conduct an artificial respiration. Get medical attention.

ABX Pentra Chloride-E	A91A00661BEN	23/08/2006
------------------------------	---------------------	-------------------

5. Fire-fighting measures

Extinguishing media:	Powder fire extinguisher, foam fire extinguisher, carbon dioxide.
Specific risks:	At a fire, a gas including carbon monoxide or monomer of methyl methacrylate may be produced by incomplete combustion or thermal decomposition. If possible, transfer immediately the products to safer places. If not, spray water around the products to cool them. Cut off the source of combustion and extinguish the fire by using a fire extinguisher. The procedures should be taken from the windward.
Special protective equipment:	Wear a respiratory protective equipment.
Additional recommendations:	None.

6. Accidental release measures

Personal precautions:	Wear an appropriate protective clothing while working.
Environmental precautions:	Prevent from getting into sewage, water, ground.
Methods for cleaning/absorption:	In the case of spill of the materials inside the electrode, vacuum or sweep up material and place in an empty disposal container. Ventilate the place.

7. Handling and storage

7.1. Handling

Technical measures:	No special requirements.
Precautions:	The usual laboratory precautions should be observed. Avoid unnecessary leak, and environment of high temperature and high humidity. Avoid contact with combustibles or oxidising agent.
Handling recommendations:	Wear a lab coat, protective gloves and safety goggles. Do not touch the upper terminal of the electrode. Do not treat the electrode roughly, such as turning up side down, dropping, giving a shock or dragging. Open the packing case just before use. After starting the use, install the electrode in the main body of instrument and avoid long-time or repeated exposure. In a work shop avoid using a fire without reason and make efforts to tidy up. Wash hands after use.

7.2. Storage

Technical measures:	No special requirements.
Storage conditions:	Store in a dark place at 15-35°C.
Incompatible materials:	None.
Packaging materials:	No special requirements.

ABX Pentra Chloride-E	A91A00661BEN	23/08/2006
------------------------------	---------------------	-------------------

8. Exposure controls/personal protection

Specific control parameters:	Controlled concentration: not established. Allowable concentration: TWA 0.01 mg/m ³ (as Ag) TLV-TWA 10 mg/m ³ (as mist of ethylene glycol)
Technical measures:	Place a local exhauster if necessary.
Respiratory protection:	Not required.
Hand protection:	Protective gloves.
Eye protection:	Safety goggles.
Skin protection:	Lab coat.
Hygiene measures:	Wash hands before and after use.

9. Physical and chemical properties

Physical state:	Solid	Autoflammability:	Higher than 400°C (methyl methacrylate (polymer))
Colour:	Not determined	Explosive properties:	Higher than 400°C (methyl methacrylate (polymer))
Odour:	Not determined	Oxidizing properties:	Not determined
pH:	Not applicable	Vapour pressure:	Not determined
Boiling point:	Not determined	Relative density:	Not determined
Melting point:	Higher than 120°C (methyl methacrylate (polymer))	Solubility:	Miscible in water. Miscible in organic solvent.
Flashing point:	Not determined	Partition coefficient:	Not determined
Flammability (solid, gaz):	Combustible and burns if there is a source of fire. At burning, it produces carbon monoxide and carbon dioxide. Moreover, monomer produced by thermal decomposition has irritating odour which may cause headache and vomiting. Acrolein causing a strong irritating action to eyes or to respiratory organs can be produced.	Other data:	Specific gravity: 1.2 -1.4

10. Stability and reactivity

Conditions to avoid:	Not determined.
Materials to avoid:	Not determined.
Hazardous decomposition products:	A compound sensitive to impact may be produced by Acetylene (Ag).
Other data:	Stable at the normal temperature in a tightly closed container.

ABX Pentra Chloride-E	A91A00661BEN	23/08/2006
------------------------------	---------------------	-------------------

11. Toxicological information

Acute toxicity:	LD (oral, mouse) > 10 g/kg (Ag) LC50 (oral, mouse) > 4.090 mg/kg (Ethylene glycol) LC50 (oral, rat) > 12.600 mg/kg (Ethylene glycol)
Chronic toxicity:	Carcinogenic and reproductive effects: not detected. Mutagenic effects: chromosomal aberration; rat (in vivo, oral); positive (Ethylene glycol). Deforming factor: not detected.
Inhalation:	Hazardous in the case of inhalation or oral ingestion. May cause fever, headache, bronchitis or even pulmonary in the case of inhaling a large quantity of the vaporised silver.
Skin contact:	Silver may penetrate from the contacted part into the skin and may cause pain and a change of colour to yellow.
Eye contact:	May irritate the mucous and cause disorders in cornea, etc. Long-term exposure may cause colour change to ash-blue in eyes, nose, pharynx or skin (silver toxicosis).
Ingestion:	Hazardous in the case of oral ingestion. May cause fever, headache, bronchitis or even pulmonary in the case of inhaling a large quantity of the vaporised silver.
Other data:	Irritant properties: feeling of wrongness Sensitisation: not detected.

12. Ecological information

Mobility:	Not determined.
Degradability:	Not determined.
Bioaccumulative potential:	Not determined.
Ecotoxicology:	Not determined.
Other hazardous effects:	Not determined.

13. Disposal considerations

Surplus or waste (residues):	This product must be disposed of according to local regulations.
Contaminated packaging:	Packaging must be disposed of according to local regulations.

14. Transport information (International regulations)

General information:	None.
By air (IATA):	Not applicable.
By land (ADR):	Not applicable.
By sea (IMDG):	Not applicable.

ABX Pentra Chloride-E	A91A00661BEN	23/08/2006
------------------------------	---------------------	-------------------

15. Regulatory information		
Symbols:	None	
R phrases:	None	
S phrases:	None	
Substances:	None	
Other regulatory requirements:	<p>The Fire laws: methyl methacrylate (polymer) (designated combustibles-synthetic resins), ethylene glycol (water-soluble solution, 3rd petroleum, 4th class, Article 2 Dangerous object (4.000L)).</p> <p>Industrial Safety And Health Law: silver (Clause 2, Article 57 (Clause 2, Article 18 of Act) No.138 of toxic substance whose name should be notified)</p> <p>PRTR Law: silver (chemical substance designated as Class I)</p> <p>In no way does this information exempt the user from knowing about or applying all the national or international regulations relating to his/her activity.</p>	

16. Other information
<p>This sheet is a complement to instructions for use but does not replace them. Information contained herewith is based on our current knowledge of the product, at the date shown, and is correct to the best of our knowledge.</p> <p>Furthermore, the user's attention is drawn to the dangers of using this product for anything other than its intended use.</p> <p>The user must accept the sole responsibility and take precautions accordingly for the use of this product.</p>