



MATERIAL SAFETY DATA SHEET

PRODUCT AND COMPANY INFORMATION

Product Name: Ultrapure CHCA MALDI Matrix

Catalog Number: CMS-100

Revision Date: 11/1/2007

Company: Protea Biosciences Inc.
955 Hartman Run Road, Suite 210
Morgantown, WV 26507 USA
304-292-2226 Fax: 304-292-7101
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COMPOSITION / INFORMATION ON COMPONENTS

Listing of dangerous and non-hazardous components:

CAS #	Chemical Name	EC #	Percent
28166-41-8	Alpha-Cyano-4-Hydroxycinnamic Acid	2488791	99.9%

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Classification system

The classification was made according to the latest editions of the EU-lists.

NFPA ratings (scale 0 to 4)

Health: 2

Flammability: 0

Reactivity: 0

Irritant. Irritating to eyes, respiratory system and skin.

FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Skin: Immediately wash with water and soap and flush thoroughly.

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: N/A

Autoignition Temperature: N/A

Explosion Limits, Lower: N/A

Upper: N/A

ACCIDENTAL RELEASE MEASURES

Procedures of personal precaution: Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods of clean-up: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pick-up is complete.

HANDLING AND STORAGE

Handling: User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage: Keep containers tightly closed and minimize light exposure.

EXPOSURE CONTROL / PERSONAL PROTECTION

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

Wash thoroughly after handling. Safety shower and eye bath. Mechanical exhaust required.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical State: Solid

Molecular Weight: 189.17 AMU

pH: N/A

BP/BP Range: N/A

MP/MP Range: 250.0 - 253.0 °C

Freezing Point: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Saturated Vapor Conc.: N/A

SG/Density: N/A

Bulk Density: N/A

Odor Threshold: N/A

Volatile%: N/A

VOC Content: N/A

Water Content: N/A

Solvent Content: N/A

Evaporation Rate: N/A

Viscosity: N/A

Surface Tension: N/A

Partition Coefficient: N/A

Decomposition Temp.: N/A

Flash Point: N/A

Explosion Limits: N/A

Flammability: N/A

Autoignition Temp: N/A

Refractive Index: N/A

Optical Rotation: N/A

Miscellaneous Data: N/A

Solubility: N/A

N/A = not available

STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Thermal decomposition / Materials to Avoid: Strong oxidizing agents, Strong bases, acid chlorides, Acid anhydrides, Strong acids.

Dangerous reactions: No dangerous reactions known.

Hazardous Decomposition Products: Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen cyanide.

Hazardous Polymerization: Will not occur.

TOXICOLOGICAL INFORMATION

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract. Maybe harmful if swallowed. The chemical, physical, and toxicological properties have not been thoroughly investigated.

ECOLOGICAL INFORMATION

No data available.

DISPOSAL CONSIDERATIONS

Product:

Recommendation: Hand over to hazardous waste disposers. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Uncleaned Packages:

Recommendation: Disposal must be made according to official regulations.

TRANSPORT INFORMATION

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 36/37/38

Risk Statements: Irritating to eyes, respiratory system and skin.

S: 26-36

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Irritant.

Risk Statements: Irritating to eyes, respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

OTHER INFORMATION

MSDS Creation Date: 5/7/2007

Revision #1 Date: 5/7/2007

Disclaimer

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Warranty

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