

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION AND COMPANY DETAILS

Product name: **Mimetic Red[®] 3 A6XL Column**
Description: (A pre-packed white plastic column with blue end-pieces containing 1ml or 10ml of Mimetic Red[®] 3 A6XL Affinity Adsorbent product code 0013)
Product Code(s): 1013-00001(1ml)
1013-00010 (10ml)

Manufacturers name: **ProMetic BioSciences Ltd**
Address: The Freeport, Ballasalla
Isle of Man
IM9 2AP
British Isles

Telephone number: +44 (0) 1624 821450
(Same number to be used in emergencies)

Fax number: +44 (0) 1624 821451
Date Prepared: 01 December 2009

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (specific chemical identity/ Common name): 1ml or 10ml of

SOLIDS: **6% Agarose** containing Galactose polysaccharide >99% with attached red coloured (non-toxic) Ligand <1%

LIQUIDS: **94% Preservative Base** containing aqueous Ethanol 24% and 0.1 M Sodium chloride (common salt) 76%

SECTION 3 - HAZARD INFORMATION

Treat as inert / Non-hazardous. No toxic / ill effects under normal operating conditions. Repeated or prolonged exposure is not known to aggravate any medical condition.

Inhalation: Slightly hazardous
Ingestion: Slightly hazardous. If ingested in quantity 24% ethanol may cause alcoholic poisoning.
Skin contact: Irritation may occur. No data on sensitisation. May have drying effect, especially on mucous membranes
Eye contact: 24% ethanol - Irritating to eyes.

SECTION 4 - FIRST AID MEASURES

Skin contact: Remove contaminated clothing and shoes. Immediately flush skin with copious amounts of cold water for at least 10 minutes, then wash with soap and water.
Eye contact: Check for and remove any contact lenses. Immediately flush eyes with copious amounts of water for at least 15 minutes.
Ingestion: Wash out mouth with cold water provided person is conscious. Seek medical advice. Do not induce vomiting unless directed by a physician. 24% Ethanol if ingested in large quantities may cause alcoholic poisoning.
Inhalation: Remove to fresh air. Seek medical advice if symptoms occur.
Always seek medical attention if irritation continues.

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SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, dry chemical powder or appropriate foam.
Special fire fighting procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Unusual fire and explosions hazards: May emit toxic fumes under fire conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

If contents of column have spilled out - Take care floor surface will be slippery at site of spillage.
Wear chemical safety goggles, splash suit, rubber boots and gloves.
Adsorb onto adsorbent paper. In case of large volumes, use sand or other inert material. Prevent spillage from entering drains. Do not touch spilled material. Place in a bag/other appropriate non-hazardous container and hold away from ignition sources/heat for waste disposal. Ventilate area and wash spill site with water after material pickup is complete.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in the event of spillage or chemical release: Wear suitable protective clothing.

Waste disposal method: Dispose of in accordance with national and local regulations for inert non-hazardous waste material.

Precautions to be taken in Handling and Storage: Store in a cool, dry place (2-30°C) in original sealed containers away from heat sources and sunlight. Avoid contact with strong oxidants and strong acids.

Other Precautions: N.D.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

Occupation Exposure Limits: No data for 24% ethanol or microspheres but non-toxic.

Personal Protective Equipment:

Respiratory System: Wear appropriate respirator when ventilation is inadequate
Skin and Body: Laboratory Coat
Hands: Impervious Gloves
Eyes: Safety glasses or goggles
Other/Special: None required

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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| Physical State: | White plastic column with blue end-pieces containing liquid and suspension. |
| Colour: | Clear, colourless liquid (solution) / Red microspheres (suspension) |
| Odour: | Slight odour of alcohol |
| Odour Threshold: | No data available |
| pH: | Not applicable |
| Boiling Point: | Lowest is 78°C (for Ethanol component at 100% concentration) |
| Melting Point: | 260°C |
| Flash Point: | Lowest is 36°C (for Ethanol component at 100% concentration) |
| Fire Hazards in presence of various substances: | May be flammable in present of open flames, sparks and heat |
| Auto-ignition temperature: | Lowest 365°C (for Ethanol component at 100% concentration) |
| Explosive Properties: | No risk |
| Lower explosion limit: | The greatest known range is 3.3-19% (Ethanol at 100% concentration) |
| Oxidising properties: | No data available |
| Vapour Pressure: | No data available for 24% Ethanol |
| Evaporation Rate: | No data available for 24% Ethanol |
| Density: | No data available for 24% Ethanol |
| Solubility: | Not applicable (suspension) |
| Vapour Density: | No data available for 24% Ethanol |

SECTION 10 - REACTIVITY DATA

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| Stability: | STABLE at normal temperatures and storage conditions. |
| Conditions to avoid: | Contact with strong oxidants. Heat and flames. |
| Incompatibility: (materials to avoid) | Contact with strong oxidants and acids |
| Hazardous Decomposition or By-products: | Thermal decomposition may yield oxides of carbon and Nitrogen |
| Hazardous polymerisation: | WILL NOT OCCUR. |

SECTION 11 - TOXICOLOGICAL INFORMATION

The toxicological properties of the preparation have not been fully investigated.

The toxicological information for the components is:

Acute effects.

Causes eye irritation.

Causes skin irritation.

Material is irritating to mucous membranes.

May be harmful by ingestion or if contacted with skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12 - ECOLOGICAL INFORMATION

Data not yet available.

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SECTION 13 - DISPOSAL CONSIDERATIONS

This material is not regarded as hazardous waste.
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.

SECTION 14 - TRANSPORT INFORMATION

Non-hazardous for road, sea and airfreight.

SECTION 15 - REGULATORY INFORMATION

IRRITANT

Safety Phrases: S16 Keep away from sources of ignition – No smoking
S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Risk Phrases: S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
R10 Flammable
R36/37/38 Irritating to eyes, respiratory system and skin

Regulations: The Chemicals (Hazard Information and Packaging for Supply) regulations 2002.
1999/45/EC Dangerous Preparations Directive.
91/155/EC Safety Data Sheets Directive.

SECTION 16 - OTHER INFORMATION

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| Source of key data used to compile Safety Data Sheet: | Component Supplier Safety Data Sheets for agarose. |
| Issue Number: | Revision dates 23 Jan 2003. |
| Issue Date: | 3 |
| Effective Date: | 01 Dec 2009 |
| | 01 Dec 2009 |

Notice to Reader:

To the best of our knowledge the information contained herein is accurate.

However, neither the named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of the 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.

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