

MATERIAL SAFETY DATA SHEET



SECTION 1 - IDENTIFICATION AND COMPANY DETAILS

Product name: Perfluorosorb® S
Product Code(s): 5003

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

Telephone number: +44 (0)1624 823519
(Same number to be used in emergencies)

Fax number: +44 (0)1624 824957
Date Prepared: 19 September 2004

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (specific chemical identity/ Common name):

SOLIDS: 15% Perfluorosorb® S containing cross-linked perfluorinated carbon based polymer 100%

LIQUIDS: 85% Preservative containing aqueous ethanol 24%

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 (ethanol preservative)
Ingestion: Slightly hazardous. If ingested in quantity 24% ethanol may cause alcoholic poisoning.
Polymer not likely to be hazardous.
Skin contact: Irritation may occur. No data on sensitisation. May have drying effect, especially on mucous membranes. Polymer not likely to be hazardous unless molten.
Eye contact: 24% ethanol - Irritating to eyes. Polymer not likely to be hazardous.

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. If molten polymer contacts skin, rapidly cool with water. Do not attempt to peel off from skin. Obtain treatment for chemical burn. Cleanse skin thoroughly after contact.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with copious amounts of water for at least 15 minutes. Call physician.

Ingestion: Wash out mouth with cold water provided person is conscious. Seek medical advice. If conscious induce vomiting. 24% Ethanol if ingested in large quantities may cause alcoholic poisoning. Consult physician.

Inhalation: Remove to fresh air. Seek medical advice if symptoms occur.

Always seek medical attention if irritation continues.

MATERIAL SAFETY DATA SHEET



SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, dry chemical powder, carbon dioxide or appropriate foam.
Special fire fighting procedures: Wear self-contained breathing apparatus. Wear full protective equipment, hydrogen fluoride fumes emitted during a fire can react with water to form hydrofluoric acid, carbon monoxide and fluorinated compounds.
Unusual fire and explosions hazards: Hazardous gases/vapours produced in fire are hydrogen fluoride, carbon monoxide, potentially toxic fluorinated compounds.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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. Collect spills in appropriate non-hazardous container.

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. Do not allow to freeze. Always store in 24% aqueous ethanol. 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 polymer but both classed as 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

MATERIAL SAFETY DATA SHEET



SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid and suspension.
Colour:	Clear, colourless liquid (solution) / White polymer (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:	302-310°C (Polymer)
Flash Point:	Lowest is 36°C (for Ethanol component at 100% concentration) 530-550°C for polymer (method ASTM D1929)
Fire Hazards in presence of various substances:	May be flammable in present of open flames, sparks and heat. See section 5 for potential products of combustion.
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
Evaporation Rate:	No data available
Density:	No data available
Solubility:	Not applicable (suspension). Polymer not soluble in water.
Vapour Density:	No data available

SECTION 10 - REACTIVITY DATA

Stability:	STABLE at normal temperatures and storage conditions.
Conditions to avoid:	Contact with strong oxidants. Heat and flames.
Incompatibility: (materials to avoid)	Can react with finely divided metal powders eg Aluminium, Magnesium and potent oxidisers like fluorine and related compounds. Contact with incompatible compounds can cause fire and explosion.
Hazardous Decomposition or By-products:	Heating above 300°C may cause evolution of particulate matter, which can cause polymer fume fever. Trace amounts of hydrogen fluoride and carbonyl fluoride may be evolved sat about 400°C with larger amounts at higher temperatures.
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.

MATERIAL SAFETY DATA SHEET



SECTION 12 - ECOLOGICAL INFORMATION

Data not yet available.

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. Be aware of potential products of combustion and ensure incinerator can cope. 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.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
Risk Phrases:	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

Source of key data used to compile Safety Data Sheet:	Component manufacturer's databases
Issue Number:	8
Issue Date:	19 September 2004
Effective Date:	19 September 2004
Changes to Issue:	updated to new design

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.

End of document