

MATERIAL SAFETY DATA SHEET

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

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 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 20% ethanol or microspheres but slightly hazardous in case of inhalation and ingestion.

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

Physical State:	Liquid and suspension.
Colour:	Clear, colourless liquid (solution) / White microspheres (suspension)
Odour:	Sweetish. Slight odour of alcohol
Odour Threshold:	180ppm. (To be confirmed)
pH:	Not applicable
Boiling Point:	Lowest is 78°C (for Ethanol component at 100% concentration)
Melting Point:	May start to solidify below 0°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 static discharge, of 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:	The highest known value is 5.3kPa at 20°C Ethanol
Evaporation Rate:	No data available for 20% Ethanol
Density:	No data available for 20% Ethanol
Solubility:	Not applicable (suspension)
Vapour Density:	The highest known value is 1.6 (Ethanol)

SECTION 10 - REACTIVITY DATA

Stability:	STABLE at normal temperatures and storage conditions.
Conditions to avoid:	Contact with strong oxidants strong acids heat and flames.
Incompatibility: (materials to avoid)	Contact with strong oxidants and acids metal perchlorates, metal nitrates, sodium metals, potassium metals, acid anhydrides and acid chlorides
Hazardous Decomposition or By-products:	Thermal decomposition may yield oxides of carbon.
Hazardous polymerisation:	WILL NOT OCCUR.

SECTION 11 - TOXICOLOGICAL INFORMATION

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.
91/689/EC Hazardous Waste definition.

SECTION 16 - OTHER INFORMATION

Source of key data used to compile Safety Data Sheet: Component Supplier Safety Data Sheets for agarose.
Revision dates 23 Jan 2003.
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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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