

MATERIAL SAFETY DATA SHEET

**VIVANTIS TECHNOLOGIES SDN BHD
REVONGEN CORPORATION CENTER**

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SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PC0701-100g; PC0701-500g; PC0701-1kg; PC0701-25kg;
PC0701-2g-S; PC0701-5g-S

Product Name: Agarose

Intended Use:

For research use only. Not for use in diagnostic procedures.

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	%
Agarose	9012-36-6	232-731-8	>99

Chemical composition:

Linear polymer formed of repeating units of D-Galactose and 3,6 anhydro-L-Galactose with alternate 1,4 and 1,3 bonds.

SECTION 3: HAZARDS IDENTIFICATION**GHS Classification**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

This product is not considered hazardous to health pursuant to Directive 67/548/CEE, but should only be used in association with suitable hygiene and safety practices.

GHS label elements

Not a hazardous substance or mixture according to by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

SECTION 4: FIRST-AID MEASURES

In case of inhalation, remove to fresh air. Give artificial respiration if not breathing. Seek medical assistance if there are problems.

In case of skin contact, wash with soap and excess water. Seek medical assistance if irritation is persistent.

In case of eye contact, wash copiously with water for up to 15 minutes. Seek medical assistance if there is persistent irritation.

In case of ingestion, wash out mouth with water provided the person is conscious. Seek medical assistance if there is abdominal discomfort.

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SECTION 5: FIRE FIGHTING MEASURES

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray, carbon dioxide, alcohol-resistant foam or dry chemical to extinguish the fire.

Do not release dangerous substances upon burning.

For fires concerning this material, do not enter or allow anyone to enter any enclosed area without proper breathing equipment.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, avoid inhaling this product and use respiratory protection if there is a lot of dust; prevent skin and eye contact by using personal protective clothing as needed.

For cleaning up, take practical precautions to limit the amount of dust. Sweep up spilt powder.

Minimize entry of product into sewers and drainage systems. Refer to permit discharge limitations if applicable. Minimize dust generation and dispose into suitable, closed chemical waste container.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good industrial hygiene and safety practice. Avoid creating dust and take normal measures for fire prevention.

Wash thoroughly after handling; remove contaminated clothing and wash before re-use.

Keep containers tightly closed in a dry, cool and well-ventilated place to protect product quality.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

This product does not contain any hazardous materials with occupational exposure limit values established by the region-specific regulatory bodies.

Respiratory Protection	Use process enclosures, local exhaust ventilation, or other engineering controls as needed. Use an approved air-purifying respirator as needed. Consult with respirator manufacturer to determine respirator selection, use and limitations.
Hand Protection	Handle with gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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Skin and Body Protection	Use chemical-resistant gloves as needed. Use clean protective body covering clothing as needed to minimize contact with clothing and skin.
Eye/Face Protection	Use tightly fitting safety goggles. Where contact with the eyes is likely, use chemical goggles.

Use engineering measures such as showers, eyewash stations and ventilation system.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White
Physical state:	Powder
Odor:	Faint marine smell
Odor threshold:	No data available
Density	Approximately 0.5g/cm ³
Relative Density:	Not applicable
pH:	5.5 – 8.0 in 1% solution
Melting point:	No data available
Freezing point:	No data available
Initial boiling point:	No data available
Boiling point:	Not applicable
Flash point:	No data available
Ignition point:	Not applicable
Decomposition temperature:	No data available
Flammability:	Not applicable
Explosive properties:	Not applicable
Combustion properties:	Not applicable
Solubility in water:	5% maximum by weight
Partition coefficient:	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Evaporation rate:	Not applicable
Viscosity:	Not applicable

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SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents

Hazardous decomposition products: Carbon oxides

Conditions to be avoided: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

Not hazardous, even high levels, for inhalation, skin contact, skin absorption or ingestion.

Not hazardous in contact with the eyes but at high exposure may cause irritation.

High concentration of the powder in the workspace may seriously reduce visibility and cause dust to settle in the eyes and nasal passages.

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

SECTION 12: ECOLOGICAL INFORMATION

No ecological effects if handled correctly.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose waste material in accordance with federal, state and local environmental regulations.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

For waste packaging, recycle otherwise landfill or incineration if recycling is not feasible.

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

ADR/RID

Not hazardous products.

IMDG

Not hazardous products.

ICAO-TI / IATA-DGR

Not hazardous products.

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SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

This product meets the following SARA 311/312 hazard categories:	None
This product contains the following SARA 302 Extremely Hazardous Substances:	None
This product contains the following SARA 313 Toxic Chemicals:	None
This product contains the following CERCLA Hazardous Substances:	None
Components are listed in the TSCA inventory	

E.U. Regulations

This preparation does not meet the dangerous preparations classification criteria under 1999/45/EC. Components are listed on EINECS or exempted from listing.

SECTION 16: OTHER INFORMATION

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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