Specification

Product Name: Agar Agar Powder
Product Code: SPEC0002

Description:
Our Agar Agar is a premium quality refined powder of European origin. The Gel strength of our Agar Agar is over 900 gr/cm2. Agar Agar is a versatile vegetarian gelling and thickening agent, mainly used as a superior Vegan alternative to Gelatine. Our Agar Agar provides odourless, colourless superior quality gels even at very low concentrations. It can be used to produce hard, brittle, transparent and neutral gels that resist acidic pH down to 3.5. Agar Agar gels melt in the mouth giving an excellent flavour release. It becomes soluble at about 90-100°C and sets when the solution has cooled at around 40-45°C. It can be reheated up to 85ºC without melting. Due to the products gelling properties it is invaluable for modifying the structure of hot creams and mousse. Suitable for Vegans & Vegetarians, Non-GMO, Gluten Free, Non-Irradiated, Non-bleached.

Physical & Chemical Data:

Colour:	White-cream powder
Odour – Taste:	Odour – tasteless powder
Humidity:	< 22 %
Ash:	< 6.5 %
Acid Insoluble Ash:	< 0.5 %
Insoluble Matter:	< 1.0 %
Starch:	N.D
Gelatine and other Proteins;	N.D
Water Absorption:	< 75 ml
Solubility:	Boiling water

Specific Parameters:

Gel Strength (gr/cm2):	>900
Gel strength measured by Mecmesin electronic Texture Analyser, solution1.5% boiled in distilled water, plunger 1cm2, gel kept 24 hours at 20°C	
Gel Strength (gr/cm2) with 1% Citric Acid	>800
Humidity:	< 15 %
Particle Size:	< 10 % over 80 mesh sieve
Viscosity:	20-40 CPS
pH(10% suspension):	5.5-7.5
Melting Temperature:	90°C (± 5°C)

Gelling Temperature:	37°C-41°C

Heavy Metal:

Pb (Lead):	< 5 mg/kg
Hg (Mercury)	< 1 mg/kg
As (Arsenic)	< 3 mg/kg
Cd (Cadmium)	< 1 mg/kg

Microbiological Data:

Total Plate:	< 5.000 cfu/g
Moulds and Yeast:	< 300 cfu/g
Salmonella spp:	absent in 5gm
E.coli:	absent in 5gm

Ingredients:
Agar Agar (E406)

Dietary Information:
Suitable for Vegans & Vegetarians, Non-GMO, Gluten Free, Non-Irradiated

Nutritional Information:
Based on typical content/100g: Energy: 698kj/174kcal, Fat: <0.1g, Of which saturates: <0.1g, Carbohydrates: <0.1g, Of which sugars: <0.1g, Protein: 0.4g, Salt: 1.77g, Fibre: 86.4g.

Shelf Life:
36 months from production date

Packaging:
50g, 100g, 250g, 500g, 1kg, 5kg, 10kg Containers

Allergen Declaration:

Allergen	Contains (Y/N)
Cereals containing Gluten	N
Crustaceans	N
Eggs	N
Fish	N
Peanuts	N
Soybeans	N
Milk	N
Nuts	N
Celery	N
Mustard	N
Sesame Seeds	N
Sulphur Dioxide and Sulphites (at concentration of more than 10mg/kg or 10mg/L in termas of Sulphur Dioxide)	N

Lupin	N
Molluscs	N

Material Safety Data Sheet

1 – Product Identification

1.1 Name of Substance or preparation: AGAR-AGAR CAS: 9002-18-0 EINECS 232-658-1
1.2 Use of substance or preparation: Food additive
1.3 Name & Address of Producer: Special Ingredients Ltd, 4 Foxwood View, Chesterfield, S41 9RN. Tel: 0044 (0)1246 906247
1.4 Emergency Telephone Contact: 07701 095864.
https://specialingredients.co.uk/pages/contact

2 – Hazards Identification

Classification of the substance or mixture:
NFPA:
Health Hazards: 0
Flammability Hazards: 0
Instability Hazards: 0
Special Hazards: N/A
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other uses of the product.

Label elements: N/A
Hazard Statements: N/A
Precautionary Statements:
P101: If medical advice is needed, have product and container to hand.
P102: Keep out of reach of children.
P501: Dispose of the contents/containers according to the local, state and federal regulations.

3 – Composition & Information about the components

Name of product: Agar Agar
Chemical composition: Mixture of 2 polysaccharides: Agarose: 3.6 Anhydro-L- Galactose and D-Galatose with 1.4 and 1.3 bonds. Agaropectin: Agarose sulphated with D-Glucuronic Acid and Pyruvic Acid. CAS: 9002-18-0; Agar Agar EINECS: 232-628-1
Components: Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (I) of §1910.1200.

4 – First Aid

Inhalation: Remove to fresh air, if there are problems, seek medical assistance. Skin Contact: Wash with excess of water. If irritation persistent, seek medical assistance. Eye Contact: Wash thoroughly with water for up to 15 minutes. If there is persistent irritation, seek medical assistance. Ingestion: If there is abdominal discomfort, seek medical assistance.

5 – Fire Fighting Measures

5.1 Suitable (and unsuitable) extinguishing media: Suitable extinguishing media: Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion, storage or use any type of extinguishing agent can be used (ABC, Powder, water…) Unsuitable extinguishing media: Non-applicable
5.2 Specific hazards arising from the chemical: Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.
5.3 Special protective equipment and precautions for fire fighters: Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit…). Additional provisions: As in any fire, prevent human exposure to fire, smoke fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate non-essential personnel from the fire area. Destroy any source of ignition. In case of fire refrigerate any storage containers and tanks for product susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6 – Accidental Release Measures

6.1 Personal precautions: Avoid inhaling the powder. Use respiratory protection if there is a lot of dust.
6.2 Environmental Precautions: Do not let product enter drains.
6.3 Cleaning Methods: Take practical precautions to limit the amount of dust. Sweep up spilt powder.
6.4 Reference to other sections: No hazardous decomposition products.

7 – Handling and Storage

7.1 General precautions for safe use: Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Maintain order, cleanliness and destroy using safe methods (section6). Technical recommendations for the prevention of fires and explosions: It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided. Technical recommendations on general occupational hygiene: Do not eat or drink during the process, washing hands afterwards with suitable cleaning products. Technical recommendations to prevent environmental risks: It is not necessary to take special measures to prevent environmental risks. For more information see section 6.2.
7.2 Conditions for safe storage, including any incompatibilities: Technical measures for

storage: Store in a cool, dry, well-ventilated location. General conditions for storage: Avoid heat, radiation, static electricity and contact with food. For additional information see subsection 10.5. Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this.

8 – Exposure Controls/Personal Protection

8.1 Control parameters: Substances whose occupational exposure limits have to be monitored in the workplace. There are no applicable occupational exposure limits for the substances contained in the product.
8.2 Appropriate engineering controls: Individual protection measures, such as personal protective equipment: As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information see section 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgement, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Non-applacConduct hazard assessments in accordance with 29CFR 1910.132. Respiratory Protection: The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded. Specific protection for the hands: PPE mandatory hand protection. Protective gloves against minor risks. Remarks: Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.1.38 (29CFR). Eye and face protection: PPE: Panoramic glasses against splash/projections. Remarks: Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPe in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR). Bodily Protection: PPE: Work clothing – Anti-slip work shoes. Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties: For complete information see product specification. Appearance: Physical state at 68°F not available. Colour: Not available. Odour: Not available. Odour threshold: Non-applicable. Volatility: Boiling point at atmosphere pressure non-applicable. Vapour pressure at 68°F non-applicable. Vapour pressure at 122°F non-applicable. Evaporation rate at 68°F non-applicable. Product description: Density at 68°F non-applicable. Not relevant due to the nature of the product, not providing information property of its hazards. Relative density at 68°F non-applicable. Dynamic viscosity at 68°F non-applicable. Kinematic viscosity at 68°F non-applicable. Kinematic viscosity at 104°F non-applicable. Concentration: Non applicable. pH: Non-applicable. Vapour density at 68°F non-applicable. Partition coefficient n-octanol/water at 68°F non-applicable. Solubility in water at 68°F non-applicable. Solubility properties: non-applicable. Decomposition temperature: non-applicable. Melting point/freezing point: non-applicable. Flammability: Flash point: non-applicable. Flammability (solid, gas): non-applicable. Autoignition temperature: non-

applicable. Lower flammability limit: non-applicable. Upper flammability limit: non-applicable. Particle characteristics: median equivalent diameter: non-applicable.
9.2 Information with regard to physical hazard classes: Explosive properties: non-applicable. Oxidising properties: non-applicable. Corrosive to metals: non-applicable. Not relevant due to the nature of the product, not providing information property of its hazards. Heat of combustion: non-applicable. Aerosols-total percentage (by mass) of flammable components: non-applicable. Other safety characteristics: Surface tension at 68°F: non-applicable. Refraction index: non-applicable. Not relevant due to the nature of the product, not providing information property of its hazards.

10 – Stability and Reactivity

10.1 Reactivity: No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
10.2 Chemical Stability: Chemically stable under the indicated conditions of storage, handling and use.
10.3 Possibility Of Hazardous Reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
10.4 Conditions to avoid: Applicable for handling and storage at room temperature: Shock and friction: not applicable. Contact with air: not applicable. Increase in temperature: not applicable. Sunlight: not applicable. Humidity: not applicable.
10.5 incompatible materials: Acids: avoid strong acids. Water: not applicable. Oxidising materials: not applicable. Combustible materials: not applicable. Others: avoid alkalis or strong bases. See subsection 10.3,10.4,10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: Carbon dioxide (CO2), carbon monoxide and other organic compounds.

11 – Toxicological Information

Oral toxicity. Effective dosage: LD50:› 5000 mg/Kg (rat). Dangerous Health implications: In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A-Ingestion (acute effect): Acute toxicity: Based on available data, the classification criteria are not met. Corrosivity/irritability: based on available data, the classification criteria are not met.
B-Inhalation (acute effect): acute toxicity: Based on available data, the classification criteria are not met. Corrosivity/Irritability: Based on available data, the classification criteria are not met.
C-contact with the skin and the eyes (acute effect): contact with the skin: Based on available data, the classification criteria are not met. Contact with the eyes: Based on available data, the classification criteria are not met.
D-CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction): Carcinogenicity: Based on available data, the classification criteria are not met. Mutagenicity: Based on available data, the classification criteria are not met. IARC: non-applicable. Reproductive toxicity: Based on available data, the classification criteria are not met.
E-Sensitising Effects: Respiratory Based on available data, the classification criteria are not met.

Skin: Based on available data, the classification criteria are not met.
F-Specific Target Organ Toxicity (STOT) – single exposure: Based on available data, the classification criteria are not met.
G- Specific Target Organ Toxicity (STOT) – Repeated Exposure: Specific target organ toxicity (STOT) repeated exposure: Based on available data, the classification criteria are not met. Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
H- Aspiration Hazard: Based on available data, the classification criteria are not met. Other information: non-applicable. Specific toxicology information on the substances: Not available.

12. – Ecological Information

12.1 Toxicity: Aquatic toxicity: no information available. Persistence and degradability: no information available.
12.2 Behaviour in ecological systems: bioaccumulative potential: no information available. Mobility in soil: no information available.
12.3 Other Environment Information: General indications: it is not hazardous for water. Results of PBT and mPmB assessments: PBT: not applicable. mPmB: not applicable.
12.3 other adverse effects: no information available.

13 – Disposal Conditions

13.1 Disposal methods: Waste management (disposal and evaluation): Consult the authorised waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as nondangerous residue. Waste should not be disposed of to drains. Regulations related to waste management: Legislation related to waste management: 40 CFR Part 261 – identification and listing of hazardous waste.

14 – Transport Information

Transport of dangerous goods by land: With regard to 49 CFR on the transport of dangerous goods.
14.1 UN Number: not applicable.
14.2 UN proper shipping name: non-applicable.
14.3 Transport hazard class(es): non-applicable. Labels: Non-applicable.
14.4 Packing group, if applicable: non-applicable.
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises: Physico-Chemical properties: see section 9.
14.7 Transport in bulk (according to Annex II of Marpol 73/78 and the IBC code): non-applicable.
Transport of dangerous goods by sea: with regard to IMDG 40-20:
14.1 UN number: non-applicable.
14.2 UN Proper shipping name: non-applicable.
14.3 Transport hazard class(es): Non-applicable. Labels: non-applicable.

14.4 Packing group, if applicable: non-applicable.
14.5 Marine pollutant: No.
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises: Special regulations: non-applicable. EmS Codes: psycho-chemical properties: see section 9. Limited quantities: non-applicable. Segregation group: non-applicable.
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): non applicable.
Transport of Dangerous goods by air: with Regard to IATA/ICAO 2022:
14.1 UN number: non-applicable.
14.2 UN proper shipping name: non-applicable.
14.3 Transport hazard class(es): non applicable. Labels non-applicable.
14.4 Packing group, if applicable: non-applicable.
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises: Psychico-Chemical properties: see section 9.
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC CODE): non-applicable.

15. Regulatory Information

15.1 Safety, health and environmental regulations specific for the product in question: Toxic chemical release reporting under EPCRA section 313 (40 CFR part 372): non-applicable. California Proposition 65 (the safe drinking water and toxic enforcement act of 1986) – cancer: non-applicable. The toxic substances control act (TSCA): Agar. Massachusetts RTK – Substance list: non-applicable. New jersey worker and community right-to-know act: non-applicable. New York RTK – substance list: non-applicable. Pennyslvania worker and community right-to-know law: non-applicable. Canada-domestic substances list: non-applicable. Canada – non-domestic substances list (DSL): Agar. NTP (national toxicology program): non-applicable. Minnesota – hazardous substances ERTK: non-applicable. Rhode Island - hazardous substances RTK: non-applicable. OSHA specifically regulated substances(29 CFR 1910.1001-1096): non-applicable. Hazardous air pollutants (clean air act): non-applicable. CALIFORNIA LABOUR CODE – the hazardous substances list: non-applicable.
California proposition 65 (the safe drinking water and toxic enforcement act of 1986) – birth defects or other reproductive harm: non applicable. Comprehensive environmental response, compensation, and liability act (CERCLA) – Reportable quantities: non-applicable. Specific provisions in terms of protecting people or the environment: it is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for manipulation, use, storage and disposal of this product. Other legislation: take into consideration other applicable federal, state, and local laws and local regulations. HACCP: Hazard analysis and critical control points, ISO:22000

16 – Other Information

Legislation related to safety data sheets: This safety data sheet has been designed in

accordance with Appendix d to 1910.1200 – safety data sheets. Texts of the legislative phrases mention in section 3: the phrases indicated do not refer to the product itself; they are merely for informative purposes and refer to the individual components which appear in section 3. 20 CFR 1910.1200: non-applicable. Advice related to training: minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product. Principal bibliographical sources: occupation safety & health administration (OSHA). Abbreviations and acronyms: IMDG: International maritime dangerous goods code. IATA: International air transport association. ICAO: International civil aviation organisation. COD: Chemical oxygen demand. BOD5: 5-day biochemical oxygen demand. BCF: Bioconcentration Factor. LD50: Lethal dose 50. CL50: Lethal concentration 50. EC50: Effective concentration 50. Log-POW: Octanol-water partition coefficient. Koc: Partition coefficient of organic carbon. IARC International agency for research on cancer.

The information contained herein is to the best of our knowledge, but since the circumstances and conditions in which it may be used are beyond our control, we do not accept any liability whatsoever, however arising, which results directly or indirectly from the use of the product.