

AGAR MATERIAL SAFETY DATA SHEET

1) SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name : Agar

Synonyms Gelose

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2) SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

| CAS# | Chemical Name | % | EINECS# |
|-----------|---|-----|-----------|
| 9002-18-0 | Agar Agar Agar (H.S.CODE:1302 31 00) | 100 | 232-658-1 |

3) SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance Light beige. Caution! This is expected to be a low hazard for usual industrial handling. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs None known.

Potential Health Effects

Eye Dust may cause mechanical irritation.

Skin May cause skin irritation. Low hazard for usual industrial handling.

Ingestion Ingestion of large amounts may cause gastrointestinal irritation. Expected to be a low ingestion hazard.

Inhalation May cause respiratory tract irritation. Low hazard for usual industrial handling.

Chronic No information found.

4) SECTION 4 - FIRST AID MEASURES

Eyes Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.

Inhalation Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician : Treat symptomatically and

5) SECTION 5 - FIRE FIGHTING MEASURES

General Information As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. U appropriate to extinguish fire.

6) SECTION 6 - ACCIDENTAL RELEASE MEASURES

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| General Information | Use proper personal protective equipment as indicated in Section 8. |
| Spills/Leaks | Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. |

7) SECTION 7 - HANDLING and STORAGE

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| Handling | Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse. |
| Storage | Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. |

8) SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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| Engineering Controls | Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. |
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EXPOSURE LIMITS

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---------------|-------------|-------------|-------------------|
| Agar Agar | None listed | None listed | None listed |

OSHA Vacated PELs

| | |
|-------------|--|
| AGAR | No OSHA Vacated PELs are listed for this chemical. Personal Protective Equipment. |
| Eyes | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
| Skin | Wear appropriate gloves to prevent skin exposure. |
| Clothing | Wear appropriate protective clothing to minimize contact with skin. |
| Respirators | Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary. |

9) SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---------------------------|-----------------|----------------------------|--|
| Physical State | Solid | Flash Point | Not applicable. |
| Appearance | light beige | NFPA Rating | (est.) Health: 1; Flammability: 0; Reactivity: 0 |
| Odor | odorless | | |
| pH | Not available. | | |
| Vapor Pressure | Negligible. | Explosion Limits, Lower | Not available. |
| Vapor Density | Not available. | Upper | Not available. |
| Evaporation Rate | Not available. | Decomposition Temperature: | |
| Viscosity | Not available. | Solubility | |
| Boiling Point | Not available. | Specific Gravity/Density | |
| Freezing/Melting Point | 0 deg C | Molecular Formula | |
| Autoignition Temperature: | Not applicable. | Molecular Weight | |

10) SECTION 10 - STABILITY AND REACTIVITY

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| Chemical Stability | : Stable at room temperature in closed containers under normal storage and handling conditions. |
| Conditions to Avoid | : Dust generation, excess heat, strong oxidants. |
| Incompatibilities with Other Materials | : Strong oxidizers. |
| Hazardous Decomposition Products | : Carbon monoxide, irritating and toxic fumes and gases, carbon |
| Hazardous Polymerization | : Has not been reported. |

11) SECTION 11 - TOXICOLOGICAL INFORMATION

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| RTECS# | CAS# 9002-18-0: AW7950000 |
| LD50/LC50 | CAS# 9002-18-0: Oral, mouse: LD50 = 16 gm/kg; Oral, rabbit: LD50 = 5800 mg/kg; Oral, rat: LD50 = 11 gm/kg. |
| Carcinogenicity | AGAR - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. |
| Epidemiology | No information available. |
| Teratogenicity | No information available. |
| Reproductive Effect | No information available. |
| Neurotoxicity | No information available. |
| Mutagenicity | No information available. |
| Other Studies | See actual entry in RTECS for complete information. |

12) SECTION 12 - ECOLOGICAL INFORMATION

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|--------------------|----------------|
| Ecotoxicity | Not available. |
| Environmental Fate | Not available. |
| Physical/Chemical | Not available. |
| Other | Not available. |

13) SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

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| RCRA P-Series | None listed. |
| RCRA U-Series | None listed. |

14) SECTION 14 - TRANSPORT INFORMATION

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| US DOT | Not Restricted (as per ICAO -IATA) |
| Canadian TDG | Not Restricted |
| IATA | Not Restricted |

15) SECTION 15 - REGULATORY INFORMATION

US FEDERAL TSCA

- CAS# 9002-18-0 is listed on the TSCA inventory.
- Health & Safety Reporting List
- None of the chemicals are on the Health & Safety Reporting List.
- Chemical Test Rules
- None of the chemicals in this product are under a Chemical Test Rule.
- Section 12b
- None of the chemicals are listed under TSCA Section 12b.
- TSCA Significant New Use Rule
- None of the chemicals in this material have a SNUR under TSCA.

SARA

- Section 302 (RQ)
None of the chemicals in this material have an RQ.
- Section 302 (TPQ)
None of the chemicals in this product have a TPQ.

Section 313

- No chemicals are reportable under Section 313.
- Clean Air Act:



- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depleters.
- This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA

OSHA:

- None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

AGAR is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level:

None of the chemicals in this product are listed. European/International Regulations

European Labeling in Accordance with EC Directives

- Hazard Symbols : Not available.
- Risk Phrases
- Safety Phrases
- S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

- CAS# 9002-18-0:

Canada

- CAS# 9002-18-0 is listed on Canada's DSL/NDSL List.
- WHMIS: Not available.
- CAS# 9002-18-0 is not listed on Canada's Ingredient

Disclosure List. Exposure Limits

16) SECTION 16 - ADDITIONAL INFORMATION

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