

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers: R524-10A, R524-20A Agarose EA

1.2 Recommended Use: Forensic, Research

1.3 Company Info: Serological Research Institute (SERI), 3053 Research Drive, Richmond, CA 94806 USA

Phone: 1-510-223-7374 Fax: 1-510-222-8887

1.4 Emergency Phone: 911, American Association of Poison Control Centers: 1-800-222-1222

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture: GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Combustible dust, For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements: Pictogram none

Signal word: Warning

Hazard statement(s) May form combustible dust concentrations in air

Precautionary statement(s) none

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - Combustible dust

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: Agarose CAS-No.: 9012-36-6, EC-No. : 232-731-8, Starch from potato, Soluble CAS-No. : 9005-25-8, EC-No. : 232-679-6

3.2 Hazardous Components: High-polymeric carbohydrate material

3.3 Component Percentage/Concentration has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: no data available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media, Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: Carbon oxides

5.3 Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information: no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions: Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

7.3 Specific end use(s): Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: Components with workplace control parameters Component CAS-No. Value Control Parameters Basis, High-polymeric Carbohydrate material 9005-25-8 TWA 10 mg/m³ USA. ACGIH Threshold Limit Values (TLV) Remarks Dermatitis Not classifiable as a human carcinogen, TWA 10.000000mg/m³, USA. ACGIH Threshold Limit Values (TLV) Dermatitis Not classifiable as a human carcinogen, TWA 15.000000mg/m³, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants, TWA 5.000000mg/m³, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants, TWA 5.000000mg/m³, USA. NIOSH Recommended Exposure Limits, TWA 10.000000mg/m³, USA. NIOSH Recommended Exposure Limits

8.2 Exposure controls: Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: power, Color: white, b) Odor: No data available, c) Odor Threshold: No data available, d) pH: No data available, e) Melting point/freezing point: No data available, f) Initial boiling point and boiling range: No data available, g) Flash point: No data available, h) Evaporation rate: No data available, i) Flammability (solid, gas): May form combustible dust concentrations in air, j) Upper/lower flammability or explosive limits: No data available, k) Vapor pressure: No data available, l) Vapor density: No data available, m) Relative density: No data available, n) Water solubility: 10 g/l at 80 °C (176 °F), o) Partition coefficient: noctanol/water: No data available, p) Auto-ignition temperature: No data available, q) Decomposition temperature: No data available, r) Viscosity: No data available, s) Explosive properties: No data available, t) Oxidizing properties: No data available

9.2 Other safety information: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No data available, Chemical stability: Stable under recommended storage conditions, Possibility of hazardous reactions: No data available, Conditions to avoid: No data available, Incompatible materials: Strong oxidizing agents, Hazardous decomposition products: Other decomposition products - No data available, In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects, Acute toxicity: No data available, Inhalation: No data available, Dermal: No data available, LD50 Intraperitoneal - Mouse - 6,600 mg/kg, Skin corrosion/irritation Skin – Human Result: Mild skin irritation - 3 h, Serious eye damage/eye irritation: No data available, Respiratory or skin sensitization: No data available. Germ cell mutagenicity: No data available, Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA., Reproductive toxicity: No data available, Specific target organ toxicity - single exposure No data available, Specific target organ toxicity - repeated exposure: No data available, Aspiration hazard: No data available, Additional Information: RTECS: Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: No data available. 12.2 Persistence and degradability: No data available, 12.3 Bioaccumulative potential: No data available, 12.4 Mobility in soil: No data available, 12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted, 12.6 Other adverse effects: No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods, Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US): Not dangerous goods, IMDG: Not dangerous goods, IATA: Not dangerous goods

SECTION 15: REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards: No SARA Hazards

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components: High-polymeric carbohydrate material, CAS-No. 9005-25-8, Revision Date 1989-08-11

Pennsylvania Right To Know Components: Agarose, CAS-No. 9012-36-6, Revision Date, High-polymeric carbohydrate material, CAS-No. 9005-25-8, Revision Date 1989-08-11

New Jersey Right To Know Components: Agarose, CAS-No. 9012-36-6, Revision Date, High-polymeric carbohydrate material, CAS-No. 9005-25-8, Revision Date 1989-08-11

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3. May form combustible dust concentrations in air

HMS Rating: Health hazard: 0, Chronic Health Hazard: Flammability: 0, Physical Hazard 0

NFPA Rating: Health hazard: 0, Fire Hazard: 0, Reactivity Hazard: 0

Revision Date: 10-2015

This material is for research and forensic applications only. It is not intended for food, drug, household, agricultural, or cosmetic use. All material should be handled only by technically qualified individuals experienced in handling potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information based on all sources available. Serological Research Institute shall not be held liable for any damage resulting from handling or from contact with the above product.