

Section 1. Product and supplier information

1.1. Identification

Product name: Agarose CL-4B

Product catalog number: P4020-100

1.2. Recommended use and restrictions on use

Research and development use only. Not for clinical or human use.

1.3. Supplier

Ubiquitin-Proteasome Biotechnologies (UBPBio), LLC

12635 E. Montview Blvd, STE100

Aurora, CO 80045

USA

Tel: 1-800-218-0982

Fax: 1-800-682-6801

Email: info@ubpbio.com

Web: www.ubpbio.com

1.4. Emergency telephone number

Emergency number: 1-800-218-0982

SECTION 3: Composition on ingredients

2.1. Substances

Agarose CL-4B

2.2. Product identifier

Mixture of the following components:

Agarose CL-4B

Ethanol (CAS# 64-17-5)

2.3. Mixtures

The product contains no substances at their given concentration are considered to be hazardous to health

SECTION 3: Hazard(s) identification

3.1. Classification of the substance or mixture

Ethanol (CAS# 64-17-5)

GHS-US classification

Flammable liquids, category 3

H225 Highly flammable liquid and vapor

H227 Combustible liquid

3.2. GHS Label elements, including precautionary statements

Information pertaining to particular dangers for man and environment:

Flammable.

Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause eye, skin, or respiratory system irritation.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 2

Fire = 3

Reactivity = 0

WHMIS-ratings (scale 0 - 4)

Health = 2

Fire = 3

SECTION 4: First-aid measures

4.1. Description of first aid measures

| | |
|--|--|
| First-aid measures after inhalation: | Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention. |
| First-aid measures after skin contact: | Wash skin with plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. |
| First-aid measures after eye contact: | Hold eyelids apart and flush eyes with plenty of water. Have eyes examined and tested by medical professional. |
| First-aid measures after ingestion: | Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get immediate medical attention. |

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2. Specific hazards arising from the chemical

Fire hazard: combustible liquid.

Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Sweep spills into absorbent material. Notify authorities if product enters sewers or public waters. Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation. Wear personal protective equipment. Avoid breathing dust.

Hygiene measures: Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a well-ventilated place. Keep at 4 °C for long term storage.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethanol (CAS# 64-17-5)

8.2. Appropriate engineering controls

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Showers; Eyewash Stations.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: Suspension.

Color: White

Odor: No data available

Odor threshold: No data available

pH: ~6.5

Freezing point: No data available

Flash point: 65 °C

Relative evaporation rate (butyl acetate=1): No data available

Ignition temperature: 425 °C

Vapor pressure: 44 mm Hg

Relative vapor density at 20 °C: No data available

Relative density: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosion limits: No data available

Explosive properties: No data available

Oxidizing properties: No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Non-reactive.

10.4. Conditions to avoid

Heat and fire.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute Toxicity**

No data available.

Skin corrosion/irritation

Irritant to skin and mucous membranes

Serious eye damage/irritation

Irritating effect

Respiratory or skin sensitization

Sensitization possible through inhalation or skin contact

Germ cell mutagenicity

Classification criteria are not met based on available data

Carcinogenicity

Classification criteria are not met based on available data

Reproductive toxicity

Classification criteria are not met based on available data

Specific target organ toxicity - single exposure

Classification criteria are not met based on available data

Specific target organ toxicity - repeated exposure

Classification criteria are not met based on available data

Aspiration hazard

Classification criteria are not met based on available data

Symptoms / Routes of exposure

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed / Immediate Effects: No known symptoms.

Additional Information

Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin.

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No data available on mobility of the substance.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose substance in accordance with prevailing country, federal, state and local regulations.

SECTION 14: Transport information

DOT regulations:

Hazard class: 3

Identification number: UN1170

Packing group: III

Proper shipping name (technical name): Ethanol solution

Label 3

Land transport ADR/RID (cross-border):

ADR/RID class: 3 Flammable liquids

Danger code (Kemler): 30

UN-Number: UN1170

Packaging group: III

Description of goods: Ethanol solution

Maritime transport IMDG:

IMDG Class: 3

UN Number: UN1170

Packaging group: III

Marine pollutant: No

Propper shipping name: Ethanol solution

Label 3

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 3

UN/ID Number: UN1170

Packaging group: III

Propper shipping name: Ethanol solution

Label 3

SECTION 15: Regulatory information

SARA 302 components:

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

SARA 313 components:

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.

SARA 311/312 hazards:

No SARA Hazards.

Massachusetts Right to Know components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know components:

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right to Know components:

No components are subject to the New Jersey Right to Know Act.

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.

Product related hazard information:

The product has been classified and marked in accordance with directives on hazardous materials.

Hazard symbols:

Harmful

Risk phrases:

Flammable.

Harmful if swallowed.

Limited evidence of a carcinogenic effect.

May cause sensitization by inhalation and skin contact.

Safety phrases:

Keep away from food, drink and animal feeding stuffs.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing.

If swallowed, seek medical advice immediately and show this container or label.

Special labeling of certain preparations:

Warning - contains substance not yet fully tested

Section 16. Other information**Other Information about this product**

This above information is believed to be correct and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty with respect to such information, and we assume no liability resulting from its use. Users should make independent decisions regarding the suitability of the information for their particular purposes.