

# SAFETY DATA SHEET

Version 6.3  
Revision Date 01/21/2021  
Print Date 11/27/2021

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name :  $\alpha$ -Cellulose  
Product Number : C8002  
Brand : Sigma  
CAS-No. : 9004-34-6

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

### 1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

### 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  
May form explosible dust-air mixture if dispersed.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

CAS-No. : 9004-34-6  
EC-No. : 232-674-9

| Component        | Classification | Concentration |
|------------------|----------------|---------------|
| <b>cellulose</b> |                |               |
|                  |                | <= 100 %      |

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

#### 5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

#### 6.4 Reference to other sections

For disposal see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage conditions

Tightly closed. Dry.

Storage class (TRGS 510): 13: Non Combustible Solids

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Ingredients with workplace control parameters

| Component | CAS-No.   | Value  | Control parameters   | Basis                                   |
|-----------|-----------|--|----------------------|---|
| cellulose | 9004-34-6 | TWA  | 10 mg/m <sup>3</sup> | USA. ACGIH Threshold Limit Values (TLV) |
|           | Remarks   | Upper Respiratory Tract irritation<br>Not applicable |                      |   |

|       |     |   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|-------|-----|---|----------------------|---|-------|-----|---|-------|----|---|-------|----|---|-------|----|---|-------|----|---|-------|----|---|-------|----|---|-------|---|---|-------|---|----|-------|--|---|
|       |     | TWA   | 15 mg/m <sup>3</sup> | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000                           |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | TWA   | 5 mg/m <sup>3</sup>  | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000                           |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | TWA   | 5 mg/m <sup>3</sup>  | USA. NIOSH Recommended Exposure Limits  |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | TWA   | 10 mg/m <sup>3</sup> | USA. NIOSH Recommended Exposure Limits  |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | TWA   | 15 mg/m <sup>3</sup> | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants        |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | TWA   | 5 mg/m <sup>3</sup>  | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants        |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | PEL   | 10 mg/m <sup>3</sup> | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | PEL   | 5 mg/m <sup>3</sup>  | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
|       |     | <p>The concentration and percentage of the particulate used for this limit are determined from the fraction passing a size selector with the following characteristics: Aerodynamic Diameter in Micrometers (unit density sphere).....</p> <p>Percent Passing Selector 0</p> <table> <tr><td>.....</td><td>100</td><td>1</td></tr> <tr><td>.....</td><td>97</td><td>2</td></tr> <tr><td>.....</td><td>91</td><td>3</td></tr> <tr><td>.....</td><td>74</td><td>4</td></tr> <tr><td>.....</td><td>50</td><td>5</td></tr> <tr><td>.....</td><td>30</td><td>6</td></tr> <tr><td>.....</td><td>17</td><td>7</td></tr> <tr><td>.....</td><td>9</td><td>8</td></tr> <tr><td>.....</td><td>5</td><td>10</td></tr> <tr><td>.....</td><td></td><td>1</td></tr> </table> |                      |   | ..... | 100 | 1 | ..... | 97 | 2 | ..... | 91 | 3 | ..... | 74 | 4 | ..... | 50 | 5 | ..... | 30 | 6 | ..... | 17 | 7 | ..... | 9 | 8 | ..... | 5 | 10 | ..... |  | 1 |
| ..... | 100 | 1   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 97  | 2   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 91  | 3   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 74  | 4   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 50  | 5   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 30  | 6   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 17  | 7   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 9   | 8   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... | 5   | 10  |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |
| ..... |     | 1   |                      |   |       |     |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |    |   |       |   |   |       |   |    |       |  |   |

## 8.2 Exposure controls

### Appropriate engineering controls

Change contaminated clothing. Wash hands after working with substance.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.4 mm  
Break through time: 480 min  
Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

### **Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

### **Control of environmental exposure**

Do not let product enter drains.

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- |   |  |
|---|--|
| a) Appearance                                   | Form: fibers<br>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                                  | ( )Not applicable                                |
| 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                          | No data available |
| o) | Partition coefficient:<br>n-octanol/water | No data available |
| p) | Autoignition<br>temperature               | No data available |
| q) | Decomposition<br>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

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No ingredient 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 ingredient 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 on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

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

**11.2 Additional Information**

RTECS: FJ5691460

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

No data available

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**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

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Waste material must be disposed of in accordance with the national and local No mixing with other waste. Handle uncleaned containers like the product. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**SECTION 14: Transport information****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**Further information**

Not classified as dangerous in the meaning of transport regulations.

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**SECTION 15: Regulatory information****SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

**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**

|           | CAS-No.   | Revision Date |
|-----------|-----------|---------------|
| cellulose | 9004-34-6 | 1994-04-01    |

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

**Pennsylvania Right To Know Components**

|           | CAS-No.   | Revision Date |
|-----------|-----------|---------------|
| cellulose | 9004-34-6 | 1994-04-01    |

**New Jersey Right To Know Components**

|           | CAS-No.   | Revision Date |
|-----------|-----------|---------------|
| cellulose | 9004-34-6 | 1994-04-01    |



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## **SECTION 16: Other information**

### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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