



G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # BTNM-0023

Cellulose, Laboratory Grade, 25 g

Size: 25 g



think proteins! think G-Biosciences!

www.GBiosciences.com



Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 5/11/2017 Version: 1.1

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

1.1. Product identifier

Product form	: Substance
Substance name	: Cellulose, Laboratory Grade
EC-No.	: 232-674-9
CAS-No.	: 9004-34-6
Product code	: C027
Type of product	: Polymer
Formula	: (C ₆ H ₁₀ O ₅) _n
Synonyms	: 402-2B / ABICEL / alpha cel PB 25 / alpha-cellulose / ALPHAPHLOC / ALPHONIER F / ARBOCEL / ARBOCEL B 400 / ARBOCEL B 600/30 / ARBOCEL B 820C / ARBOCEL BC 1000 / ARBOCEL BC 1000 R / ARBOCEL BC 200 / ARBOCEL BC 200 R / ARBOCEL BC 300 / ARBOCEL BE 600/10 / ARBOCEL BE 600/20 / ARBOCEL BE 600/30 / ARBOCEL BEM 400-15 / ARBOCEL BER 400 S / ARBOCEL BERC 300 P / ARBOCEL BVEC 200 / ARBOCEL BVS 400 / ARBOCEL BZNC 200 / ARBOCEL BZNC 200 Fine / ARBOCEL DC 1000 / ARBOCEL FD OO / ARBOCEL FIC 200 / ARBOCEL NV 600-30 / ARBOCEL TP 40 / ARBOCELL B 600/30 / AVICEL / AVICEL 101 / AVICEL 102 / AVICEL 2330 / AVICEL 2331 / AVICEL 955 / AVICEL CL 611 / AVICEL E 200 / AVICEL FD 100 / AVICEL FD 101 / AVICEL PH 101 / AVICEL PH 101/102 / AVICEL PH 102 / AVICEL PH 103 / AVICEL PH 105 / AVICEL PH 112 / AVICEL PH 113 / AVICEL PH 200 / AVICEL PH 301 / AVICEL PH 302 / AVICEL PH microcrystalline cellulose / AVICEL PH-F 10 / AVICEL PH-M 06 / AVICEL PH-M 15 / AVICEL RC 591 / AVICEL SF / AVICEL SP / AVICEL TG 101 / AVICEL TG-D / baker-flex cellulose / BELLFINE D 10 / beta-amylase / CELISH / CELISH 100F / CELISH 100L / CELISH KY 100L / CELISH KY 100S / CELLEX MX / cellulose / cellulose 248 / cellulose crystalline avicel / cellulose flock / cellulose, crystalline / cellulose, microcrystalline / cellulose, powder / CELUFI / CEMIROM / CEPO / CEPO CFM / CEPO S 20 / CEPO S 40 / CF 11 / CHROMEDIA CC 31 / CHROMEDIA CF 11 / cotton linter pulp / crystalline cellulose / cupricellulose / DIACEL-4 / E 460 / ELCEMA F 150 / ELCEMA G 250 / ELCEMA P 050 / ELCEMA P 100 / flock-cellulose / FRESENIUS D 6 / HEWETEN 10 / HEWETEN 40 / hydroxycellulose / KINGCOT / LA 01 / MCC / microcrystalline cellulose / microcrystalline cellulose, MCC / MN-cellulose / ONOZUKA P 500 / polycellobiose / pyrocellulose / RAYOPHANE / RAYWEB Q / REXCEL / SIGMACELL / SOLKA-FIL / SOLKA-FLOC / SOLKA-FLOC BW / SOLKA-FLOC BW 100 / SOLKA-FLOC BW 20 / SOLKA-FLOC BW 200 / SOLKA-FLOC BW 2030 / SPARTOSE OM-22 / sulfite cellulose / TOMOFAN / TUNICIN / WHATMAN 41 / WHATMAN CC-31 / wood pulp / XUS 40511.00 experimental cellulose
Product group	: Raw material
BIG No	: 22347
REACH authorisation exemptions	: Exempted from REACH registration

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Chemical raw material Food industry: additive Cosmetic product: component
------------------------------	---

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
63132-1429 Saint Louis - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type	: Polymer
Name	: Cellulose, Laboratory Grade
CAS-No.	: 9004-34-6
EC-No.	: 232-674-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
cellulose	(CAS-No.) 9004-34-6 (EC-No.) 232-674-9	100	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact	: Slight irritation.
------------------------------------	----------------------

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
Unsuitable extinguishing media	: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Non-flammable. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD: Heating increases the fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: DIRECT EXPLOSION HAZARD: Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
----------------------	--

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Emergency procedures	: Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. In case of dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing. Powdered form: no compressed air for pumping over spills.
Methods for cleaning up	: Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Heat and ignition sources	: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. halogens. (strong) bases. water/moisture.
Storage area	: Store in a dry area. Keep container in a well-ventilated place. Provide the tank with earthing. Store at room temperature. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: wood. synthetic material.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Cellulose, Laboratory Grade (9004-34-6)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	10 mg/m ³ 4 mg/m ³
WEL STEL (mg/m ³)	20 mg/m ³
cellulose (9004-34-6)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	10 mg/m ³ 4 mg/m ³
WEL STEL (mg/m ³)	20 mg/m ³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Materials for protective clothing:
GIVE GOOD RESISTANCE: rubber
Hand protection:
Gloves
Eye protection:
Safety glasses. In case of dust production: protective goggles
Skin and body protection:
Protective clothing
Respiratory protection:
Dust production: dust mask with filter type P1

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Fibres. Powder.
Colour	: White to off-white.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 5 - 7 (11 %)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 260 - 270 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: > 300 °C
Decomposition temperature	: 260 - 270 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C	: Not applicable
Relative density	: 1.3 - 1.6
Density	: 1270 - 1610 kg/m ³
Solubility	: Insoluble in water. Substance sinks in water. Soluble in hydrogenchloride. Soluble in sulfuric acid. Insoluble in organic solvents. Water: < 0.1 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable ≥ 15 g/m ³
Lower explosive limit (LEL)	: 15 g/m ³

9.2. Other information

VOC content	: 0 %
Other properties	: Opaque. Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts exothermically with (some) bases. Reacts with (strong) oxidizers. Under confinement: reacts exothermically on exposure to water (moisture): risk of spontaneous ignition.

10.2. Chemical stability

Unstable on exposure to moisture.

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Cellulose, Laboratory Grade (9004-34-6)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 6 mg/l (4 h, Rat, Inhalation)

cellulose (9004-34-6)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 6 mg/l (4 h, Rat, Inhalation)

Skin corrosion/irritation : Not classified

pH: 5 - 7 (11 %)

Serious eye damage/irritation : Not classified

pH: 5 - 7 (11 %)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Not irritant to skin. Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Slightly irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Slightly harmful to fishes. No water pollutant (surface water). Slightly harmful to algae. Slightly harmful to bacteria. Slightly harmful to crustacea.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Cellulose, Laboratory Grade (9004-34-6)

LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)

cellulose (9004-34-6)

LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.2. Persistence and degradability

Cellulose, Laboratory Grade (9004-34-6)

Persistence and degradability	Biodegradable in water.
-------------------------------	-------------------------

cellulose (9004-34-6)

Persistence and degradability	Biodegradable in water.
-------------------------------	-------------------------

12.3. Bioaccumulative potential

Cellulose, Laboratory Grade (9004-34-6)

Bioaccumulative potential	Bioaccumulation: not applicable.
---------------------------	----------------------------------

cellulose (9004-34-6)

Bioaccumulative potential	Bioaccumulation: not applicable.
---------------------------	----------------------------------

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Waste treatment methods.
Product/Packaging disposal recommendations	: Do not discharge into surface water. Remove to an authorized dump. Remove to an authorized incinerator with energy recovery.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	: 15 01 02 - plastic packaging 15 01 03 - wooden packaging 04 02 21 - wastes from unprocessed textile fibres

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not regulated
----------------------------------	-----------------

IMDG

Transport hazard class(es) (IMDG)	: Not regulated
-----------------------------------	-----------------

IATA

Transport hazard class(es) (IATA)	: Not regulated
-----------------------------------	-----------------

ADN

Transport hazard class(es) (ADN)	: Not regulated
----------------------------------	-----------------

RID

Transport hazard class(es) (RID)	: Not regulated
----------------------------------	-----------------

14.4. Packing group

Packing group (ADR)	: Not regulated
---------------------	-----------------

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Cellulose, Laboratory Grade is not on the REACH Candidate List

Cellulose, Laboratory Grade is not on the REACH Annex XIV List

Cellulose, Laboratory Grade is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Cellulose, Laboratory Grade is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

VOC content : 0 %

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 5/11/2017 Version: 1.1

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

1.1. Product identifier

Product form	: Substance
Substance name	: Cellulose, Laboratory Grade
EC-No.	: 232-674-9
CAS-No.	: 9004-34-6
Product code	: C027
Type of product	: Polymer
Formula	: (C ₆ H ₁₀ O ₅) _n
Synonyms	: 402-2B / ABICEL / alpha cel PB 25 / alpha-cellulose / ALPHAPHLOC / ALPHONIER F / ARBOCEL / ARBOCEL B 400 / ARBOCEL B 600/30 / ARBOCEL B 820C / ARBOCEL BC 1000 / ARBOCEL BC 1000 R / ARBOCEL BC 200 / ARBOCEL BC 200 R / ARBOCEL BC 300 / ARBOCEL BE 600/10 / ARBOCEL BE 600/20 / ARBOCEL BE 600/30 / ARBOCEL BEM 400-15 / ARBOCEL BER 400 S / ARBOCEL BERC 300 P / ARBOCEL BVEC 200 / ARBOCEL BVS 400 / ARBOCEL BZNC 200 / ARBOCEL BZNC 200 Fine / ARBOCEL DC 1000 / ARBOCEL FD OO / ARBOCEL FIC 200 / ARBOCEL NV 600-30 / ARBOCEL TP 40 / ARBOCELL B 600/30 / AVICEL / AVICEL 101 / AVICEL 102 / AVICEL 2330 / AVICEL 2331 / AVICEL 955 / AVICEL CL 611 / AVICEL E 200 / AVICEL FD 100 / AVICEL FD 101 / AVICEL PH 101 / AVICEL PH 101/102 / AVICEL PH 102 / AVICEL PH 103 / AVICEL PH 105 / AVICEL PH 112 / AVICEL PH 113 / AVICEL PH 200 / AVICEL PH 301 / AVICEL PH 302 / AVICEL PH microcrystalline cellulose / AVICEL PH-F 10 / AVICEL PH-M 06 / AVICEL PH-M 15 / AVICEL RC 591 / AVICEL SF / AVICEL SP / AVICEL TG 101 / AVICEL TG-D / baker-flex cellulose / BELLFINE D 10 / beta-amylase / CELISH / CELISH 100F / CELISH 100L / CELISH KY 100L / CELISH KY 100S / CELLEX MX / cellulose / cellulose 248 / cellulose crystalline avicel / cellulose flock / cellulose, crystalline / cellulose, microcrystalline / cellulose, powder / CELUFI / CEMIROM / CEPO / CEPO CFM / CEPO S 20 / CEPO S 40 / CF 11 / CHROMEDIA CC 31 / CHROMEDIA CF 11 / cotton linter pulp / crystalline cellulose / cupricellulose / DIACEL-4 / E 460 / ELCEMA F 150 / ELCEMA G 250 / ELCEMA P 050 / ELCEMA P 100 / flock-cellulose / FRESENIUS D 6 / HEWETEN 10 / HEWETEN 40 / hydroxycellulose / KINGCOT / LA 01 / MCC / microcrystalline cellulose / microcrystalline cellulose, MCC / MN-cellulose / ONOZUKA P 500 / polycellobiose / pyrocellulose / RAYOPHANE / RAYWEB Q / REXCEL / SIGMACELL / SOLKA-FIL / SOLKA-FLOC / SOLKA-FLOC BW / SOLKA-FLOC BW 100 / SOLKA-FLOC BW 20 / SOLKA-FLOC BW 200 / SOLKA-FLOC BW 2030 / SPARTOSE OM-22 / sulfite cellulose / TOMOFAN / TUNICIN / WHATMAN 41 / WHATMAN CC-31 / wood pulp / XUS 40511.00 experimental cellulose
Product group	: Raw material
BIG No	: 22347
REACH authorisation exemptions	: Exempted from REACH registration

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Chemical raw material Food industry: additive Cosmetic product: component
------------------------------	---

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
63132-1429 Saint Louis - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type	: Polymer
Name	: Cellulose, Laboratory Grade
CAS-No.	: 9004-34-6
EC-No.	: 232-674-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
cellulose	(CAS-No.) 9004-34-6 (EC-No.) 232-674-9	100	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact	: Slight irritation.
------------------------------------	----------------------

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
Unsuitable extinguishing media	: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Non-flammable. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD: Heating increases the fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: DIRECT EXPLOSION HAZARD: Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
----------------------	--

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Emergency procedures	: Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. In case of dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing. Powdered form: no compressed air for pumping over spills.
Methods for cleaning up	: Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Heat and ignition sources	: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. halogens. (strong) bases. water/moisture.
Storage area	: Store in a dry area. Keep container in a well-ventilated place. Provide the tank with earthing. Store at room temperature. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: wood. synthetic material.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Cellulose, Laboratory Grade (9004-34-6)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	10 mg/m ³ 4 mg/m ³
WEL STEL (mg/m ³)	20 mg/m ³
cellulose (9004-34-6)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	10 mg/m ³ 4 mg/m ³
WEL STEL (mg/m ³)	20 mg/m ³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Materials for protective clothing:
GIVE GOOD RESISTANCE: rubber
Hand protection:
Gloves
Eye protection:
Safety glasses. In case of dust production: protective goggles
Skin and body protection:
Protective clothing
Respiratory protection:
Dust production: dust mask with filter type P1

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Fibres. Powder.
Colour	: White to off-white.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 5 - 7 (11 %)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 260 - 270 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: > 300 °C
Decomposition temperature	: 260 - 270 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C	: Not applicable
Relative density	: 1.3 - 1.6
Density	: 1270 - 1610 kg/m ³
Solubility	: Insoluble in water. Substance sinks in water. Soluble in hydrogenchloride. Soluble in sulfuric acid. Insoluble in organic solvents. Water: < 0.1 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable ≥ 15 g/m ³
Lower explosive limit (LEL)	: 15 g/m ³

9.2. Other information

VOC content	: 0 %
Other properties	: Opaque. Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts exothermically with (some) bases. Reacts with (strong) oxidizers. Under confinement: reacts exothermically on exposure to water (moisture): risk of spontaneous ignition.

10.2. Chemical stability

Unstable on exposure to moisture.

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Cellulose, Laboratory Grade (9004-34-6)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 6 mg/l (4 h, Rat, Inhalation)

cellulose (9004-34-6)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 6 mg/l (4 h, Rat, Inhalation)

Skin corrosion/irritation : Not classified

pH: 5 - 7 (11 %)

Serious eye damage/irritation : Not classified

pH: 5 - 7 (11 %)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Not irritant to skin. Practically non-toxic by inhalation (LC50 inh, rat > 5 mg/l/4h). Slightly irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Slightly harmful to fishes. No water pollutant (surface water). Slightly harmful to algae. Slightly harmful to bacteria. Slightly harmful to crustacea.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Cellulose, Laboratory Grade (9004-34-6)

LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)

cellulose (9004-34-6)

LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.2. Persistence and degradability

Cellulose, Laboratory Grade (9004-34-6)

Persistence and degradability	Biodegradable in water.
-------------------------------	-------------------------

cellulose (9004-34-6)

Persistence and degradability	Biodegradable in water.
-------------------------------	-------------------------

12.3. Bioaccumulative potential

Cellulose, Laboratory Grade (9004-34-6)

Bioaccumulative potential	Bioaccumulation: not applicable.
---------------------------	----------------------------------

cellulose (9004-34-6)

Bioaccumulative potential	Bioaccumulation: not applicable.
---------------------------	----------------------------------

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Waste treatment methods.
Product/Packaging disposal recommendations	: Do not discharge into surface water. Remove to an authorized dump. Remove to an authorized incinerator with energy recovery.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	: 15 01 02 - plastic packaging 15 01 03 - wooden packaging 04 02 21 - wastes from unprocessed textile fibres

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not regulated
----------------------------------	-----------------

IMDG

Transport hazard class(es) (IMDG)	: Not regulated
-----------------------------------	-----------------

IATA

Transport hazard class(es) (IATA)	: Not regulated
-----------------------------------	-----------------

ADN

Transport hazard class(es) (ADN)	: Not regulated
----------------------------------	-----------------

RID

Transport hazard class(es) (RID)	: Not regulated
----------------------------------	-----------------

14.4. Packing group

Packing group (ADR)	: Not regulated
---------------------	-----------------

Cellulose, Laboratory Grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Cellulose, Laboratory Grade is not on the REACH Candidate List

Cellulose, Laboratory Grade is not on the REACH Annex XIV List

Cellulose, Laboratory Grade is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Cellulose, Laboratory Grade is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

VOC content : 0 %

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.