

Reviewed on 04/06/2018

## **1** Identification

- · Product identifier
- · Trade name: Cellulase Y-C (from Trichoderma viride)
- · Article number: 320961
- · CAS Number:
- 9012-54-8
- EC number:
- 232-734-4
- Index number: 647-002-00-3
- Molecular Formula N/A
- · Molecular Weight N/A g/mol
- · Application of the substance / the mixture For Research Use Only
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com
- Information department: Quality Control Department
  Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2 Hazard(s) identification

· Classification of the substance or mixture

GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### · Label elements

• *GHS label elements* The substance is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms* 



- · Signal word Danger
- · Hazard-determining components of labeling:
- Cellulase
- · Hazard statements
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- · Precautionary statements
- Avoid breathing dust/fume/gas/mist/vapors/spray
- [In case of inadequate ventilation] wear respiratory protection.
- If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
- If experiencing respiratory symptoms: Call a poison center/doctor.

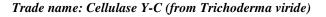
Dispose of contents/container in accordance with local/regional/national/international regulations.

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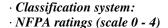
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HEALTH\*2Health = \*2FIRE0Fire = 0REACTIVITY0Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.

• **vPvB:** Not applicable.

#### 3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 9012-54-8 Cellulase
- Identification number(s)
- · EC number: 232-734-4
- · Index number: 647-002-00-3

#### **4 First-aid measures**

- · Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- After eye contact: Flush eyes with running water as a precaution.
- After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

### **5** *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

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## 6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- $\cdot$  Methods and material for containment and cleaning up:

*Pick up mechanically, dispose contaminated material as waste according to Section 13. Ensure adequate ventilation.* 

- · Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

## • Protective Action Criteria for Chemicals

· PAC-1:

Substance is not listed.

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

### 7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Avoid direct contact with skin and eyes. • Information about protection against explosions and fires: No special requirements.

- · Conditions for safe storage, including any incompatibilities
- Storage: 2-8°C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- $\cdot$  Further information about storage conditions:
- Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- $\cdot$  General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

• Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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• Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • *Material of gloves* 

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• *Eye protection:* Not required.

Physical and chemical prope	rties			
Information on basic physical and	chemical properties			
General Information				
Appearance:				
Form:	Powder			
Color:	Light brown Indeterminate			
Odor: Odor threshold:	Not determined.			
pH-value:	Not applicable.			
Change in condition				
<b>Boiling point/Boiling range:</b>	Undetermined.			
Flash point:	Not applicable.			
Flammability (solid, gaseous):	Product is not flammable.			
Decomposition temperature:	Not determined.			
Auto igniting:	Not determined.			
Danger of explosion:	See section 10			
Explosion limits:				
Lower:	Not Applicable			
Upper:	Not Applicable			
Vapor pressure:	Not applicable.			
Density:	Not Applicable			
Relative density	Not determined.			
Vapor density	Not applicable.			
Evaporation rate	Not applicable.			
Solubility in / Miscibility with	Not Determined			
Water:	Soluble.			
Partition coefficient (n-octanol/wat	ter): Not determined.			
Viscosity:				
Dynamic:	Not applicable.			
Kinematic:	Not applicable.			

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VOC content:	0.00 % 0.0 g/l / 0.00 lb/gl	
Solids content: • Other information	100.0 % No further relevant information available.	

### **10 Stability and reactivity**

• *Reactivity* No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

### **11** Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- $\cdot$  on the eye: Irritant and potentially harmful
- · Sensitization: Sensitization possible through inhalation.
- · Additional toxicological information:

#### · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

### **12 Ecological information**

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:

· General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.

• vPvB: Not applicable.

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• Other adverse effects No further relevant information available.

#### **13 Disposal considerations**

• Waste treatment methods

· Recommendation:

Can not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- **Recommendation:** Discard must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleaning agents.

UN-Number		
DOT, ADR, ADN, IMDG, IATA	Not regulated	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not regulated	
Transport hazard class(es)		
DOT, ADR, ADN, IMDG, IATA		
Class	Not regulated	
Packing group		
DOT, ADR, IMDG, IATA	Not regulated	
Environmental hazards:		
Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex	: II of	
MARPOL73/78 and the IBC Code	Not applicable.	

### **15 Regulatory information**

 $\cdot$  Safety, health and environmental regulations/legislation specific for the substance or mixture  $\cdot$  Sara

· Section 355 (extremely hazardous substances)	Section	n 355 (	extremely	hazardous	substances)
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Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· TSCA new (21st Century Act) (Substances not listed)

· Proposition 65

• Chemicals known to cause cancer:

Substance is not listed.

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• Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

 $\cdot$  Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

·NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

• *GHS label elements* The substance is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms* 



· Signal word Danger

- *Hazard-determining components of labeling: Cellulase*
- · Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

[In case of inadequate ventilation] wear respiratory protection.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a poison center/doctor.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Quality Control Dept.

· Date of preparation / last revision 04/06/2018 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods

- DOT: US Department of Transportation
- IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Resp. Sens. 1: Respiratory sensitisation – Category 1