

Material Safety Data Sheet.

1. IDENTIFICATION

Product Identifier: Cellulase 22,225 CU/g
Other Means of Identification:
Synonymes: 1,4-(1,3:1,4) - β -D-Glucan 4-glucono-hydrolase
Chemical Formula: N/A
Chemical Family: Fungal enzyme
CAS Number: 9012-54-8
EC Number: 3.2.1.4
Recommended Use: Nutritional supplement
Restrictions on Use: Not known.
Initial Supplier Identifier: Gurvey & Berry Co. Inc.
310 Judson Street, Unit #15
Toronto, ON, Canada, M8Z 5T6
Tel: (416) 259-5700 Fax: (416) 259-5417
E-mail: msds@gurveyberry.com
Emergency Telephone number: Canutec +1 (613)-966-6666

2. HAZARD IDENTIFICATION

GHS Classification in accordance with Hazardous Products Regulations (HPR) OR/2015-17)

Hazard class	Hazard class and category	Hazard statement
Skin irritation	2	H315
Serious eye damage/eye irritation	2B	H320
Skin sensitizer	1B	H317
Respiratory sensitizer	1	H334
Specific target organ toxicity – single exposure (respiratory tract irritation)	3	H335

Signal word:

Warning!

Danger!

Pictograms:



Hazard statements

- H315 Causes skin irritation.
- H319 Causes eye irritation.
- H335 May cause respiratory irritation.
- H317 May cause an allergic skin reaction.
- H334 May cause allergy, or asthma symptoms, or breathing difficulties if inhaled.

Precautionary statements – prevention.

- P261 Avoid breathing dust.
- P271 Use only outdoors or in a well-ventilated area.
- P285 Wear respiratory protection.
- P280 Wear protective gloves/clothing and eye/face protection.
- P363 Wash contaminated clothing before reuse.
- P264 Wash hands thoroughly after handling.

Precautionary statements - response

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
Remove contaminated clothes and wash.

- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P304+341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON center/DOCTOR if you are experiencing respiratory symptoms or feel unwell.

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.

- P332+P313 If skin irritation, rash occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.

Any person who experiences any allergic or sensitive reactions to this powder should refrain from handling it again.

Precautionary statements - storage

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

Precautionary statements - disposal

- P501 Dispose of contents/container to industrial combustion plant.

Hazards not otherwise classified (HNOC) or not covered by GHS.

If extremely high levels of dust are generated in ambient air, material can support combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common name / Synonyms	Other identifiers
Cellulase	9012-54-8	6.5 - 8.8 %	See section 1	
Maltodextrin	9050-36-6	91.2 - 93.5 %		
Calcium Carbonate		<1%		
Sodium Benzoate		<1%		
Silicon dioxide		<1%		

Notes:

4. FIRST-AID MEASURES

First aid measures by route of exposure:

General:

Move out of dangerous area.
Remove any contaminated clothing.
Consult a physician and show this safety data sheet.

After Ingestion:

Do not induce vomiting without medical advice.
Rinse mouth with water.
Never administer anything by mouth to an unconscious person. Obtain medical aid.

After Inhalation:

Move person to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Obtain medical aid.

After Skin Contact:

Remove contaminated clothing and shoes.
Brush off loose particles from skin.
Flush skin with soap and water at least 15 min.
Seek medical attention if irritation develops.

After Eye Contact:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Seek medical attention should irritation develop or persist.

Most Important Symptoms and Effects, Acute and Delayed:

Symptoms/effects after inhalation of dust:

Wheezing, coughing, sneezing, chest tightness. Faster breathing and fast heartbeat. Drowsiness, confusion, tiredness, dizziness, and fainting.
Blue lips or fingers, dry/sore throat.
Seek medical attention.

Symptoms/effects after skin contact: Tingling/irritation of the skin.

Symptoms/effects after eye contact: Dust (or material) can cause eye irritation. Symptoms include stinging, tearing, redness.

Symptoms/effects after ingestion: Irritation of the gastric/intestinal mucosa. Respiratory reaction is also possible with hypersensitive individuals.

Medical Conditions Aggravated

By Exposure: Pre-existing respiratory allergic conditions and skin conditions may be aggravated.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water mist, foam, dry chemical.

Unsuitable Extinguishing Media: Carbon dioxide, do not use water jet.

Special Hazards Arising from the Product:

Decomposition Products – Nitrogen oxides, carbon monoxide, and carbon dioxide, sulfur oxide.

Special Protective Equipment and Precautions for Fire-Fighters:

As in any fire, wear a self-contained breathing apparatus and full protective gear.

During a fire, irritating and highly toxic gases may be generated by thermal decomposition combustion.

Further information. May cause allergic respiratory reaction.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

No action shall be taken involving any personal risk or without suitable training.

Communicate hazard.

Evacuate unprotected personnel to safe areas.

Wear personal protective equipment. (see section 8).

Remove all sources of ignition.

Ensure adequate ventilation. Avoid breathing dust.

Prevent further leak or spill if safe to do so.

Wash hands thoroughly with soap and water after handling this material.

Methods and materials for containment and cleaning up

Small spill.

Wear Personal protective equipment (see section 8).

Prevent further spillage if safe to do so.

Spilled product should be removed immediately to avoid formation of dust.

Vacuum or gently moisten with water and collect into a sealable container for disposal.

Flush spill area with plenty of water (low pressure) into approved sewer.
 Avoid formation of aerosols and dusts.
 Ensure sufficient ventilation.
 Dispose of containers in accordance with local, regional, and federal authority requirement.
 Wash contaminated clothing.

Large spill.

Wear Personal protective equipment (see section 8).
 Prevent further spillage if safe to do so.
 Avoid generation of dusts. Ensure adequate ventilation. Avoid breathing dust.
 Shovel carefully. Use designated, labeled, closed waste containers for disposal.
 Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
 Dispose of containers in accordance with local, regional, and federal authority requirement.

Environmental precautions

Do not let product enter drains and ground.

Reference to other sections

See section 1 for emergency contact.
 See section 8 for information on appropriate personal protective equipment.
 See section 13 for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Always wear personal protective equipment (see section 8)
 Avoid contact with eyes, skin, and clothing.
 Avoid ingestion and inhalation.
 Avoid formation of dust.
 Use with adequate ventilation.

For precautionary statements see also section 2.2

Wash hands thoroughly after handling.
 Don not eat in the area.

Conditions for Safe Storage: Refrigerate below 15 C. low humidity environment. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL	TWA	STEL
	N/A	N/A	N/A	N/A

Appropriate Engineering Controls: Local (or general) exhaust ventilation is recommended.
Mechanical exhaust recommended.
Eyewash station and safety shower required.

Personal Protection Measures (e.g. personal protective equipment):

Eye/face protection	Safety glasses with side-shields for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN (EU).
Skin and body protection	Full body protective clothing, boots, gloves. Handle with gloves compatible with this material. Gloves must be inspected prior to use.
Respiratory protection	If operations generate dust, fume, or mist, use local ventilation or other appropriate Engineering controls to keep exposure contaminants below the exposure limit. Be sure to use approved /certified respirator or dust mask, such as standard N95.
Control of environmental exposure	Do not let product enter drains or ground.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form:	Solid (powder)
Color:	Light tan
Molecular Weight:	N/A
Odour:	Characteristic
Odour Threshold:	N/A
pH:	N/A
Melting Point/freezing point:	N/A
Initial boiling point/boiling rage:	N/A
Flash Point:	N/A
Evaporation Rate:	N/A
Flammability (solid; gas):	N/A
Upper flammability or explosive limits	N/A
Lower flammability or explosive limits	N/A
Vapor Pressure (mmHg):	N/A
Vapor Density (air=1):	N/A
Relative Density:	N/A
Solubility in Water:	Soluble
Solubility in Other Agents:	N/A
Partition coefficient (n-octanol/water)	N/A
Autoignition	N/A
Decomposition	N/A
Viscosity	N/A
Explosive properties	Air-dust mixture may cause an explosion
Oxidizing properties	N/A

Other information:

N/A

10. STABILITY AND REACTIVITY

Reactivity:

Chemical stability:	Stable under recommended storage conditions. See section 7.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	Heat, direct sunlight, moisture.
Incompatible materials:	No data available
Hazardous decomposition products:	No data available.
Other decomposition products	No data available.
In the event of fire:	See section 5

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation:	Yes
Skin contact:	Yes
Eye contact:	Yes
Ingestion:	Yes

Acute Toxicity Oral LD₅₀: N/A

Skin corrosion/irritation: May cause skin irritation.

Serious Eye Damage/irritation: May cause eye irritation.

Respiratory and/or Skin

Sensitization:	May cause respiratory and skin sensitization.
Aspiration Toxicity:	N/A
STOT (Specific Target Organ Toxicity) Single Exposure:	May cause respiratory irritation.
STOT (Specific Target Organ Toxicity) Repeated Exposure:	N/A

Carcinogenicity:

IARC	Not listed
ACGIH®	Not listed.
OSHA	Not listed
Reproductive Toxicity:	N/A
Germ Cell Mutagenicity:	N/A
Interactive Effects	N/A

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil:

No data available

Other adverse effects:

No data available

13. DISPOSAL CONSIDERATIONS

Wastes of Residues:

Package product wastes.

Close and label the waste receptacles and any unclean empty containers.

Dispose of according to local, provincial, and federal regulations.

Contaminated Packaging:

Do not reuse containers. Dispose of as unused product.

14. TRANSPORT INFORMATION

Not dangerous goods for transport. Keep separated from foodstuffs.

15. REGULATORY INFORMATION

CANADA DSL/NDSL: EC# 3.2.1.4 Cellulase is listed on the DSL.

16. OTHER INFORMATION

This information is based upon knowledge currently available.

More detailed information on the physical and chemical properties can be requested from the supplier. To the best of our knowledge, the information contained herein is accurate and complete. However, this should not be construed to imply any warranty or guarantee. Gurvey & Berry Co. Inc. shall not be held liable for any damage resulting from handling or from contact with the above chemical.

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This document will only be updated as needed.

N/A = not available.

N/D = not determined.