

Printing date 04/25/2019

Reviewed on 04/25/2019

1 Identification

- **Product identifier**
- **Trade name:** 4% Protein Diet
- **Article number:** 960254
- **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**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:**
Mixture of substances listed below with nonhazardous additions.
Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 57-50-1 EINECS: 200-334-9 RTECS: WN6500000	Sucrose	50-90%
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CAS: 9005-25-8 EINECS: 232-679-6 RTECS: GM5090000	Corn Starch	10-50%
CAS: 9004-34-6 EINECS: 232-674-9 RTECS: FJ5691460	Alphacel	2.5-10%

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **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.

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.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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:**

6100-05-6	Potassium citrate monohydrate	30 mg/m ³
7778-80-5	potassium sulphate	20 mg/m ³
1309-48-4	magnesium oxide	30 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
150-13-0	p-Aminobenzoic Acid	15 mg/m ³
598-62-9	Manganese Carbonate	6.3 mg/m ³

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3486-35-9	Zinc Carbonate	12 mg/m ³
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	14 mg/m ³
12069-69-1	Cupric Carbonate	5.2 mg/m ³
10102-18-8	Sodium Selenite	1.3 mg/m ³
7758-05-6	potassium iodate	0.45 mg/m ³

· PAC-2:

6100-05-6	Potassium citrate monohydrate	330 mg/m ³
7778-80-5	potassium sulphate	220 mg/m ³
1309-48-4	magnesium oxide	120 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
150-13-0	p-Aminobenzoic Acid	69 mg/m ³
598-62-9	Manganese Carbonate	10 mg/m ³
3486-35-9	Zinc Carbonate	130 mg/m ³
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	160 mg/m ³
12069-69-1	Cupric Carbonate	45 mg/m ³
10102-18-8	Sodium Selenite	2.3 mg/m ³
7758-05-6	potassium iodate	4.9 mg/m ³

· PAC-3:

6100-05-6	Potassium citrate monohydrate	2,000 mg/m ³
7778-80-5	potassium sulphate	1,300 mg/m ³
1309-48-4	magnesium oxide	730 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
150-13-0	p-Aminobenzoic Acid	410 mg/m ³
598-62-9	Manganese Carbonate	60 mg/m ³
3486-35-9	Zinc Carbonate	750 mg/m ³
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	950 mg/m ³
12069-69-1	Cupric Carbonate	270 mg/m ³
10102-18-8	Sodium Selenite	3.1 mg/m ³
7758-05-6	potassium iodate	29 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **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.
- **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.

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

57-50-1 Sucrose

PEL Long-term value: 15* 5** mg/m³

*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³

*total dust **respirable fraction

TLV Long-term value: 10 mg/m³

9005-25-8 Corn Starch

PEL Long-term value: 15* 5** mg/m³

*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³

*total dust **respirable fraction

TLV Long-term value: 10 mg/m³

9004-34-6 Alphacel

PEL Long-term value: 15* 5** mg/m³

*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³

*total dust **respirable fraction

TLV Long-term value: 10 mg/m³

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

- **Breathing equipment:** Not required.

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Pellet

Color: Light yellow

Odor: Indeterminate

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· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	See section 10
· Explosion limits: Lower: Upper:	Not Applicable Not Applicable
· Vapor pressure:	Not applicable.
· Density: · Relative density · Vapor density · Evaporation rate	Not Applicable Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with · Water:	Not Determined Not determined. Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic: Kinematic:	Not applicable. Not applicable.
· Solvent content: VOC content:	0.00 %
Solids content: · Other information	95.0 % 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.
Avoid contact with acids. Contact liberates a toxic gas.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:** Based on available data, the classification criteria are not met.

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** Irritant and potentially harmful

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide, chemically prepared	3
150-13-0	p-Aminobenzoic Acid	3
10102-18-8	Sodium Selenite	3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is 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 (Self-assessment): 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.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

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

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- **Uncleaned packagings:**
- **Recommendation:** Discard must be made according to official regulations.

14 Transport information

· 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.
· UN "Model Regulation":	Not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (extremely hazardous substances):		
50-14-6	ergocalciferol	
10102-18-8	Sodium Selenite	
· Section 313 (Specific toxic chemical listings):		
598-62-9	Manganese Carbonate	
3486-35-9	Zinc Carbonate	
12069-69-1	Cupric Carbonate	
10102-18-8	Sodium Selenite	
· TSCA (Toxic Substances Control Act):		
57-50-1	Sucrose	ACTIVE
9005-25-8	Corn Starch	ACTIVE
9004-34-6	Alphacel	ACTIVE
8001-30-7	Corn Oil	ACTIVE
9000-71-9	Casein	ACTIVE
7757-93-9	Calcium Phosphate Dibasic	ACTIVE
67-48-1	choline chloride	ACTIVE
7647-14-5	Sodium Chloride	ACTIVE

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50-81-7	<i>L-Ascorbic Acid</i>	ACTIVE
7778-80-5	<i>potassium sulphate</i>	ACTIVE
1309-48-4	<i>magnesium oxide</i>	ACTIVE
7695-91-2	<i>DL-alpha-Tocopherol Acetate</i>	ACTIVE
7631-86-9	<i>silicon dioxide, chemically prepared</i>	ACTIVE
87-89-8	<i>D-myo-Inositol</i>	ACTIVE
150-13-0	<i>p-Aminobenzoic Acid</i>	ACTIVE
59-67-6	<i>nicotinic acid</i>	ACTIVE
137-08-6	<i>D-Pantothenic Acid Calcium Salt</i>	ACTIVE
598-62-9	<i>Manganese Carbonate</i>	ACTIVE
58-27-5	<i>Menadione</i>	ACTIVE
127-47-9	<i>Vitamin A Acetate</i>	ACTIVE
68-19-9	<i>Vitamin B12</i>	ACTIVE
3486-35-9	<i>Zinc Carbonate</i>	ACTIVE
83-88-5	<i>riboflavin</i>	ACTIVE
58-56-0	<i>Pyridoxine Hydrochloride</i>	ACTIVE
67-03-8	<i>Thiamine Hydrochloride</i>	ACTIVE
12069-69-1	<i>Cupric Carbonate</i>	ACTIVE
59-30-3	<i>Folic Acid</i>	ACTIVE
50-14-6	<i>ergocalciferol</i>	ACTIVE
9000-01-5	<i>Gum Arabic</i>	ACTIVE
58-85-5	<i>D-Biotin</i>	ACTIVE

· **Hazardous Air Pollutants**

598-62-9	<i>Manganese Carbonate</i>	
10102-18-8	<i>Sodium Selenite</i>	

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

598-62-9	<i>Manganese Carbonate</i>	D
10102-18-8	<i>Sodium Selenite</i>	D

· **TLV (Threshold Limit Value established by ACGIH)**

57-50-1	<i>Sucrose</i>	A4
9005-25-8	<i>Corn Starch</i>	A4
1309-48-4	<i>magnesium oxide</i>	A4

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

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **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** 04/25/2019 / -

· **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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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