

### 1 Identification

- **Product identifier**
- **Trade name:** Vitamin D Free Diet, Rat
- **Article number:** 960074
- **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)**



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

### 3 Composition/information on ingredients

- **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 9004-34-6	Alphacel	≥2.5-<10%
EINECS: 232-674-9		
RTECS: FJ5691460		

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## 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:**

471-34-1	Calcium Carbonate	45 mg/m <sup>3</sup>
137-40-6	Sodium propionate	15 mg/m <sup>3</sup>
7791-18-6	Magnesium Chloride Hexahydrate	34 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	18 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	15 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	1.3 mg/m <sup>3</sup>
7758-99-8	Cupric Sulfate Pentahydrate	12 mg/m <sup>3</sup>
7681-49-4	Sodium Fluoride	17 mg/m <sup>3</sup>
7791-13-1	Cobalt Chloride Hexahydrate	0.24 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	9.2 mg/m <sup>3</sup>
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	110 mg/m <sup>3</sup>

- **PAC-2:**

471-34-1	Calcium Carbonate	210 mg/m <sup>3</sup>
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137-40-6	Sodium propionate	170 mg/m <sup>3</sup>
7791-18-6	Magnesium Chloride Hexahydrate	370 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	740 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	69 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	15 mg/m <sup>3</sup>
7758-99-8	Cupric Sulfate Pentahydrate	32 mg/m <sup>3</sup>
7681-49-4	Sodium Fluoride	90 mg/m <sup>3</sup>
7791-13-1	Cobalt Chloride Hexahydrate	25 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	15 mg/m <sup>3</sup>
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	1,200 mg/m <sup>3</sup>

## · PAC-3:

471-34-1	Calcium Carbonate	1,300 mg/m <sup>3</sup>
137-40-6	Sodium propionate	1,000 mg/m <sup>3</sup>
7791-18-6	Magnesium Chloride Hexahydrate	1,600 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	410 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	87 mg/m <sup>3</sup>
7758-99-8	Cupric Sulfate Pentahydrate	190 mg/m <sup>3</sup>
7681-49-4	Sodium Fluoride	1,100 mg/m <sup>3</sup>
7791-13-1	Cobalt Chloride Hexahydrate	150 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	90 mg/m <sup>3</sup>
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	6,900 mg/m <sup>3</sup>

## 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.
- **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:**

<b>9004-34-6 Alphacel</b>	
PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	Long-term value: 10 mg/m <sup>3</sup>

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- **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

- |  |                                    |
|--|------------------------------------|
| · <b>Information on basic physical and chemical properties</b> |                                    |
| · <b>General Information</b>                                   |                                    |
| · <b>Appearance:</b>   |                                    |
| Form:  | Pellets                            |
| Color:   | According to product specification |
| · <b>Odor:</b> Indeterminate                                   |                                    |
| · <b>Odor threshold:</b> Not determined.                       |                                    |
| · <b>pH-value:</b> Not applicable.                             |                                    |
| · <b>Change in condition</b>                                   |                                    |
| Boiling point/Boiling range:                                   | Undetermined.                      |
| · <b>Flash point:</b> Not applicable.                          |                                    |
| · <b>Flammability (solid, gaseous):</b> Not determined.        |                                    |
| · <b>Decomposition temperature:</b> Not determined.            |                                    |
| · <b>Auto igniting:</b> Product is not selfigniting.           |                                    |
| · <b>Danger of explosion:</b> See section 10                   |                                    |
| · <b>Explosion limits:</b>                                     |                                    |
| Lower:   | Not Applicable                     |
| Upper:   | Not Applicable                     |
| · <b>Vapor pressure:</b> Not applicable.                       |                                    |
| · <b>Density:</b> Not Applicable                               |                                    |
| · <b>Relative density</b> Not determined.                      |                                    |
| · <b>Vapor density</b> Not applicable.                         |                                    |
| · <b>Evaporation rate</b> Not applicable.                      |                                    |
| · <b>Solubility in / Miscibility with</b> Not Determined       |                                    |

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· <b>Water:</b>	Not determined.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gl
· <b>Solids content:</b>	100.0 %
· <b>Other information</b>	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:** Based on available data, the classification criteria are not met.

### · LD/LC50 values that are relevant for classification:

#### 137-40-6 Sodium propionate

Oral	LD50	6,332 mg/kg (mouse)
Dermal	LD50	1,640 mg/kg (rabbit)

- **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
7681-49-4	Sodium Fluoride	3

#### · NTP (National Toxicology Program)

None of the ingredients is listed.

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

## 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not regulated   |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not regulated   |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | Not regulated   |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not regulated   |
| · <b>Environmental hazards:</b>  | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

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· UN "Model Regulation":	Not regulated
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## 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
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· **Section 313 (Specific toxic chemical listings):**

10034-96-5	Manganese Sulfate Monohydrate
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· **TSCA (Toxic Substances Control Act):**

68308-23-6	Casein
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9004-34-6	Alphacel
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8001-30-7	Corn Oil
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7447-40-7	Potassium Chloride
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471-34-1	Calcium Carbonate
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7647-14-5	Sodium Chloride
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67-48-1	choline chloride
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50-81-7	L-Ascorbic Acid
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137-40-6	Sodium propionate
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2338-05-8	Ferric Citrate Purified Powder
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9005-25-8	Corn Starch
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7695-91-2	DL-alpha-Tocopherol Acetate
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7631-86-9	silicon dioxide, chemically prepared
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87-89-8	D-myo-Inositol, cell culture reagent
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150-13-0	p-Aminobenzoic Acid
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59-67-6	nicotinic acid
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137-08-6	D-Pantothenic Acid Calcium Salt
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58-27-5	Menadione
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127-47-9	Vitamin A Acetate
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68-19-9	Vitamin B12
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83-88-5	riboflavin
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58-56-0	Pyridoxine Hydrochloride
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67-03-8	Thiamine Hydrochloride
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7681-11-0	Potassium Iodide
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7681-49-4	Sodium Fluoride
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59-30-3	Folic Acid
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9000-01-5	Gum Arabic
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50-14-6	ergocalciferol
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58-85-5	D-Biotin
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· **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)**

10034-96-5 Manganese Sulfate Monohydrate

D

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

9005-25-8 Corn Starch

A4

7681-49-4 Sodium Fluoride

A4

· **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** 10/23/2018 / -· **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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit