

## 1 Identification

- **Product identifier**
- **Trade name:** AIN-76 Mineral Mixture
- **Article number:** 905455
- **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

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

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

Trade name: AIN-76 Mineral Mixture

(Contd. of page 1)

· <b>Dangerous components:</b>		
CAS: 57-50-1 EINECS: 200-334-9 RTECS: WN6500000	Sucrose	10-50%
CAS: 1309-48-4 EINECS: 215-171-9 RTECS: OM3850000	magnesium oxide	1-2.5%
· <b>Non-Hazardous Ingredients</b>		
CAS: 7757-93-9 EINECS: 231-826-1	Calcium Phosphate Dibasic	50-90%
CAS: 6100-05-6	Potassium citrate monohydrate	10-50%
CAS: 7647-14-5 EINECS: 231-598-3 RTECS: VZ4725000	Sodium Chloride	2.5-<10%
CAS: 7778-80-5 EINECS: 231-915-5 RTECS: TT5900000	potassium sulphate	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**  
No dangerous substances are released.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

**Trade name: AIN-76 Mineral Mixture**

(Contd. of page 2)

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 <sup>3</sup>
7778-80-5	potassium sulphate	20 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	30 mg/m <sup>3</sup>
598-62-9	Manganese Carbonate	6.3 mg/m <sup>3</sup>
3486-35-9	Zinc Carbonate	12 mg/m <sup>3</sup>
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	14 mg/m <sup>3</sup>
12069-69-1	Cupric Carbonate	5.2 mg/m <sup>3</sup>
7758-05-6	potassium iodate	0.45 mg/m <sup>3</sup>
10102-18-8	Sodium Selenite	1.3 mg/m <sup>3</sup>

**· PAC-2:**

6100-05-6	Potassium citrate monohydrate	330 mg/m <sup>3</sup>
7778-80-5	potassium sulphate	220 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	120 mg/m <sup>3</sup>
598-62-9	Manganese Carbonate	10 mg/m <sup>3</sup>
3486-35-9	Zinc Carbonate	130 mg/m <sup>3</sup>
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	160 mg/m <sup>3</sup>
12069-69-1	Cupric Carbonate	45 mg/m <sup>3</sup>
7758-05-6	potassium iodate	4.9 mg/m <sup>3</sup>
10102-18-8	Sodium Selenite	2.3 mg/m <sup>3</sup>

**· PAC-3:**

6100-05-6	Potassium citrate monohydrate	2,000 mg/m <sup>3</sup>
7778-80-5	potassium sulphate	1,300 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	730 mg/m <sup>3</sup>
598-62-9	Manganese Carbonate	60 mg/m <sup>3</sup>
3486-35-9	Zinc Carbonate	750 mg/m <sup>3</sup>
7788-99-0	Chromium Potassium Sulfate Dodecahydrate	950 mg/m <sup>3</sup>
12069-69-1	Cupric Carbonate	270 mg/m <sup>3</sup>
7758-05-6	potassium iodate	29 mg/m <sup>3</sup>
10102-18-8	Sodium Selenite	3.1 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:** 15-30 °C

· **Requirements to be met by storerooms and receptacles:** No special requirements.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

Trade name: AIN-76 Mineral Mixture

(Contd. of page 3)

· **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:**

### 57-50-1 Sucrose

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>

### 1309-48-4 magnesium oxide

PEL Long-term value: 15\* mg/m<sup>3</sup>  
fume; \*total particulate

TLV Long-term value: 10\* mg/m<sup>3</sup>  
\*as inhalable fraction

· **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: Solid material

Color: According to product specification

· **Odor:** Indeterminate

· **Odor threshold:** Not determined.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

Trade name: AIN-76 Mineral Mixture

(Contd. of page 4)

· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b> <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	
<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>	
<b>Lower:</b>	Not Applicable
<b>Upper:</b>	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> <b>Water:</b>	Not Determined Insoluble.
· <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>Organic solvents:</b>	0.0 %
<b>VOC content:</b>	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.

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

Trade name: AIN-76 Mineral Mixture

(Contd. of page 5)

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**
- **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)**

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.

- **Uncleaned packagings:**

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

US

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

Trade name: AIN-76 Mineral Mixture

(Contd. of page 6)

## 14 Transport information

<b>· UN-Number</b>	
<b>· DOT, ADR, ADN, IMDG, IATA</b>	Not regulated
<b>· UN proper shipping name</b>	
<b>· DOT, ADR, ADN, IMDG, IATA</b>	Not regulated
<b>· Transport hazard class(es)</b>	
<b>· DOT, ADR, ADN, IMDG, IATA</b>	
<b>· Class</b>	Not regulated
<b>· Packing group</b>	
<b>· DOT, ADR, IMDG, IATA</b>	Not regulated
<b>· Environmental hazards:</b>	
<b>· Marine pollutant:</b>	No
<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.
<b>· UN "Model Regulation":</b>	Not regulated

## 15 Regulatory information

<b>· Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>· Sara</b>	
<b>· Section 355 (extremely hazardous substances):</b>	
10102-18-8	Sodium Selenite
<b>· Section 313 (Specific toxic chemical listings):</b>	
598-62-9	Manganese Carbonate
3486-35-9	Zinc Carbonate
12069-69-1	Cupric Carbonate
10102-18-8	Sodium Selenite
<b>· TSCA (Toxic Substances Control Act):</b>	
7757-93-9	Calcium Phosphate Dibasic
57-50-1	Sucrose
7647-14-5	Sodium Chloride
7778-80-5	potassium sulphate
1309-48-4	magnesium oxide
598-62-9	Manganese Carbonate
3486-35-9	Zinc Carbonate
12069-69-1	Cupric Carbonate
7758-05-6	potassium iodate
10102-18-8	Sodium Selenite
<b>· Proposition 65</b>	
<b>· Chemicals known to cause cancer:</b>	
None of the ingredients is listed.	

(Contd. on page 8)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/14/2017

Reviewed on 03/14/2017

**Trade name: AIN-76 Mineral Mixture**

(Contd. of page 7)

· **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	Manganese Carbonate	D
10102-18-8	Sodium Selenite	D

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

57-50-1	Sucrose	A4
1309-48-4	magnesium oxide	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** 03/14/2017 / -

· **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