

Printing date 03/11/2019

Reviewed on 03/11/2019

1 Identification

- **Product identifier**
- **Trade name:** AIN-93G Mineral Mix
- **Article number:** 960400
- **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: consisting of the following components.

· **Dangerous components:**

CAS: 471-34-1 EINECS: 207-439-9 RTECS: EV 9580000	Calcium Carbonate	10-50%
CAS: 57-50-1 EINECS: 200-334-9 RTECS: WN6500000	Sucrose	10-50%

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CAS: 1309-48-4	magnesium oxide
EINECS: 215-171-9	
RTECS: OM3850000	

I-2.5%

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 ³
7778-77-0	Potassium Phosphate Monobasic Anhydrous	9.6 mg/m ³
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
3486-35-9	Zinc Carbonate	12 mg/m ³
6834-92-0	disodium metasilicate	3.8 mg/m ³
598-62-9	Manganese Carbonate	6.3 mg/m ³
12069-69-1	Cupric Carbonate	5.2 mg/m ³

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10043-35-3	Boric Acid	6 mg/m ³
7681-49-4	Sodium Fluoride	17 mg/m ³
3333-67-3	nickel carbonate	0.61 mg/m ³
7447-41-8	lithium chloride	2.3 mg/m ³
13410-01-0	Sodium Selenate	1.4 mg/m ³
7681-11-0	Potassium Iodide	1.3 mg/m ³
13106-76-8	ammonium molybdate(VI)	3.1 mg/m ³
7803-55-6	Ammonium Metavanadate	0.01 mg/m ³

· PAC-2:

471-34-1	Calcium Carbonate	210 mg/m ³
7778-77-0	Potassium Phosphate Monobasic Anhydrous	110 mg/m ³
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
3486-35-9	Zinc Carbonate	130 mg/m ³
6834-92-0	disodium metasilicate	42 mg/m ³
598-62-9	Manganese Carbonate	10 mg/m ³
12069-69-1	Cupric Carbonate	45 mg/m ³
10043-35-3	Boric Acid	23 mg/m ³
7681-49-4	Sodium Fluoride	90 mg/m ³
3333-67-3	nickel carbonate	6.6 mg/m ³
7447-41-8	lithium chloride	25 mg/m ³
13410-01-0	Sodium Selenate	1.6 mg/m ³
7681-11-0	Potassium Iodide	15 mg/m ³
13106-76-8	ammonium molybdate(VI)	22 mg/m ³
7803-55-6	Ammonium Metavanadate	0.11 mg/m ³

· PAC-3:

471-34-1	Calcium Carbonate	1,300 mg/m ³
7778-77-0	Potassium Phosphate Monobasic Anhydrous	630 mg/m 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
3486-35-9	Zinc Carbonate	750 mg/m ³
6834-92-0	disodium metasilicate	250 mg/m ³
598-62-9	Manganese Carbonate	60 mg/m ³
12069-69-1	Cupric Carbonate	270 mg/m ³
10043-35-3	Boric Acid	830 mg/m ³
7681-49-4	Sodium Fluoride	1,100 mg/m ³
3333-67-3	nickel carbonate	40 mg/m ³
7447-41-8	lithium chloride	150 mg/m ³
13410-01-0	Sodium Selenate	2 mg/m ³
7681-11-0	Potassium Iodide	87 mg/m ³
13106-76-8	ammonium molybdate(VI)	130 mg/m ³

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7803-55-6 Ammonium Metavanadate

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80 mg/m³

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.
- **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:**

471-34-1 Calcium Carbonate

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 TLV withdrawn

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

1309-48-4 magnesium oxide

PEL Long-term value: 15* mg/m³
fume; *total particulate

TLV Long-term value: 10* mg/m³
*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

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- **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: Powder
Color: According to product specification

- **Odor:** Indeterminate

- **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: 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:** Not determined.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not applicable.
Kinematic: Not applicable.

- **Solvent content:**

VOC content: 0.00 %
0.0 g/l / 0.00 lb/gl

Solids content: 100.0 %

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· **Other information** 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.
- **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)**

10141-00-1	Chromium(III) potassium sulfate	3
7681-49-4	Sodium Fluoride	3
3333-67-3	nickel carbonate	1

- **NTP (National Toxicology Program)**

3333-67-3	nickel carbonate	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

ATE (Acute Toxicity Estimate)

Oral LC50 / 96 h | 14,592 mg/L (Pimephales promelas)

- **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.

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- **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

· UN-Number	
· DOT, ADR, IMDG, IATA	Not regulated
· UN proper shipping name	
· DOT, ADR, IMDG, IATA	Not regulated
· Transport hazard class(es)	
· DOT, ADR, IMDG, IATA	
· Class	Not regulated
· Packing group	
· DOT, ADR, IMDG, IATA	Not regulated
· Environmental hazards:	Not applicable.
· 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):	
13410-01-0	Sodium Selenate
· Section 313 (Specific toxic chemical listings):	
3486-35-9	Zinc Carbonate
598-62-9	Manganese Carbonate
12069-69-1	Cupric Carbonate

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10141-00-1	Chromium(III) potassium sulfate
3333-67-3	nickel carbonate
13410-01-0	Sodium Selenate
7803-55-6	Ammonium Metavanadate

· **TSCA (Toxic Substances Control Act):**

471-34-1	Calcium Carbonate
57-50-1	Sucrose
7778-77-0	Potassium Phosphate Monobasic Anhydrous
7647-14-5	Sodium Chloride
7778-80-5	potassium sulphate
1309-48-4	magnesium oxide
3486-35-9	Zinc Carbonate
6834-92-0	disodium metasilicate
598-62-9	Manganese Carbonate
12069-69-1	Cupric Carbonate
10141-00-1	Chromium(III) potassium sulfate
10043-35-3	Boric Acid
7681-49-4	Sodium Fluoride
3333-67-3	nickel carbonate
7447-41-8	lithium chloride
13410-01-0	Sodium Selenate
7681-11-0	Potassium Iodide
13106-76-8	ammonium molybdate(VI)
7803-55-6	Ammonium Metavanadate

· **Proposition 65**

· **Chemicals known to cause cancer:**

3333-67-3	nickel carbonate
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· **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
10043-35-3	Boric Acid	I (oral)

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

57-50-1	Sucrose	A4
1309-48-4	magnesium oxide	A4
10043-35-3	Boric Acid	A4
7681-49-4	Sodium Fluoride	A4

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3333-67-3	nickel carbonate	A1
13106-76-8	ammonium molybdate(VI)	A3

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

3333-67-3	nickel carbonate
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- **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** 03/11/2019 / -
- **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

US