

Printing date 02/13/2019

Reviewed on 02/13/2019

1 Identification

- **Product identifier**
- **Trade name:** Salt Mixture H.M.W
- **Article number:** 902838
- **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	50-90%
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CAS: 10045-86-0
EINECS: 233-149-7

Ferric Phosphate

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
10045-86-0	Ferric Phosphate	8.1 mg/m ³
10034-99-8	Magnesium Sulfate Heptahydrate	33 mg/m ³
7681-49-4	Sodium Fluoride	17 mg/m ³
7758-99-8	Cupric Sulfate Pentahydrate	12 mg/m ³
10034-96-5	Manganese Sulfate Monohydrate	9.2 mg/m ³
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	110 mg/m ³
7681-11-0	Potassium Iodide	1.3 mg/m ³

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· PAC-2:		
471-34-1	Calcium Carbonate	210 mg/m ³
7778-77-0	Potassium Phosphate Monobasic Anhydrous	110 mg/m ³
10045-86-0	Ferric Phosphate	89 mg/m ³
10034-99-8	Magnesium Sulfate Heptahydrate	370 mg/m ³
7681-49-4	Sodium Fluoride	90 mg/m ³
7758-99-8	Cupric Sulfate Pentahydrate	32 mg/m ³
10034-96-5	Manganese Sulfate Monohydrate	15 mg/m ³
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	1,200 mg/m ³
7681-11-0	Potassium Iodide	15 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
10045-86-0	Ferric Phosphate	530 mg/m ³
10034-99-8	Magnesium Sulfate Heptahydrate	2,300 mg/m ³
7681-49-4	Sodium Fluoride	1,100 mg/m ³
7758-99-8	Cupric Sulfate Pentahydrate	190 mg/m ³
10034-96-5	Manganese Sulfate Monohydrate	90 mg/m ³
7784-24-9	Aluminum Potassium Sulfate Dodecahydrate	6,900 mg/m ³
7681-11-0	Potassium Iodide	87 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:** 15-30°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:**

471-34-1 Calcium Carbonate	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	TLV withdrawn

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10045-86-0 Ferric PhosphateREL Long-term value: 1 mg/m³
as FeTLV Long-term value: 1 mg/m³
as Fe

· **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: Powder

Color: Off White

· **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.

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· 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 %
· 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.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 31,000 mg/kg (rat)

- **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)

7681-49-4 Sodium Fluoride

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<ul style="list-style-type: none"> · NTP (National Toxicology Program)
<ul style="list-style-type: none"> · None of the ingredients is listed.
<ul style="list-style-type: none"> · OSHA-Ca (Occupational Safety & Health Administration)
<ul style="list-style-type: none"> · 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

- | | |
|--|-----------------|
| <ul style="list-style-type: none"> · UN-Number | Not regulated |
| <ul style="list-style-type: none"> · DOT, ADR, IMDG, IATA | Not regulated |
| <ul style="list-style-type: none"> · UN proper shipping name | Not regulated |
| <ul style="list-style-type: none"> · DOT, ADR, IMDG, IATA | Not regulated |
| <ul style="list-style-type: none"> · Transport hazard class(es) | Not regulated |
| <ul style="list-style-type: none"> · DOT, ADR, IMDG, IATA | Not regulated |
| <ul style="list-style-type: none"> · Class | Not regulated |
| <ul style="list-style-type: none"> · Packing group | Not regulated |
| <ul style="list-style-type: none"> · DOT, ADR, IMDG, IATA | Not regulated |
| <ul style="list-style-type: none"> · Environmental hazards: | Not applicable. |
| <ul style="list-style-type: none"> · Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | 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):	
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None of the ingredients is listed.	
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· Section 313 (Specific toxic chemical listings):	
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10034-96-5	Manganese Sulfate Monohydrate
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· TSCA (Toxic Substances Control Act):	
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471-34-1	Calcium Carbonate
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7778-77-0	Potassium Phosphate Monobasic Anhydrous
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7447-40-7	Potassium Chloride
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7647-14-5	Sodium Chloride
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10045-86-0	Ferric Phosphate
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7681-49-4	Sodium Fluoride
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7681-11-0	Potassium Iodide
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· TSCA new (21st Century Act) (Substances not listed)	
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10045-86-0	Ferric Phosphate
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· Proposition 65	
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· Chemicals known to cause cancer:	
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None of the ingredients is listed.	
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· Chemicals known to cause reproductive toxicity for females:	
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None of the ingredients is listed.	
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· Chemicals known to cause reproductive toxicity for males:	
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None of the ingredients is listed.	
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· Chemicals known to cause developmental toxicity:	
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None of the ingredients is listed.	
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· Carcinogenic categories	
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· EPA (Environmental Protection Agency)	
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10034-96-5	Manganese Sulfate Monohydrate		D
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· TLV (Threshold Limit Value established by ACGIH)	
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7681-49-4	Sodium Fluoride		A4
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· NIOSH-Ca (National Institute for Occupational Safety and Health)	
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None of the ingredients is listed.	
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· GHS label elements Void	
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· Hazard pictograms Void	
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· Signal word Void	
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· Hazard statements Void	
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· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	
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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** 02/13/2019 / -
- **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)

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 & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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