

## Safety Data Sheet acc. to OSHA HCS

Printing date 01/03/2020

Reviewed on 01/03/2020

### 1 Identification

- **Product identifier**
- **Trade name:** DOB 2% Galactose (Powder)
- **Article number:** 4025522
- **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.

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**· Dangerous components:**

CAS: 7774-34-7 EINECS: 233-140-8 RTECS: EV 9800000	calcium chloride	≥2.5-<10%
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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:**

7778-77-0	Potassium Phosphate Monobasic Anhydrous	9.6 mg/m <sup>3</sup>
10034-99-8	Magnesium Sulfate Heptahydrate	33 mg/m <sup>3</sup>
7774-34-7	calcium chloride	24 mg/m <sup>3</sup>
7783-20-2	Ammonium Sulfate	13 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	15 mg/m <sup>3</sup>
10043-35-3	Boric Acid	6 mg/m <sup>3</sup>
7446-20-0	Zinc Sulfate heptahydrate	27 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	9.2 mg/m <sup>3</sup>

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7631-95-0	Sodium Molybdate	3.2 mg/m <sup>3</sup>
7705-08-0	iron trichloride	8.7 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	1.3 mg/m <sup>3</sup>
7758-98-7	copper sulphate	7.5 mg/m <sup>3</sup>

**· PAC-2:**

7778-77-0	Potassium Phosphate Monobasic Anhydrous	110 mg/m <sup>3</sup>
10034-99-8	Magnesium Sulfate Heptahydrate	370 mg/m <sup>3</sup>
7774-34-7	calcium chloride	260 mg/m <sup>3</sup>
7783-20-2	Ammonium Sulfate	140 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	69 mg/m <sup>3</sup>
10043-35-3	Boric Acid	23 mg/m <sup>3</sup>
7446-20-0	Zinc Sulfate heptahydrate	170 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	15 mg/m <sup>3</sup>
7631-95-0	Sodium Molybdate	17 mg/m <sup>3</sup>
7705-08-0	iron trichloride	30 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	15 mg/m <sup>3</sup>
7758-98-7	copper sulphate	9.9 mg/m <sup>3</sup>

**· PAC-3:**

7778-77-0	Potassium Phosphate Monobasic Anhydrous	630 mg/m <sup>3</sup>
10034-99-8	Magnesium Sulfate Heptahydrate	2,300 mg/m <sup>3</sup>
7774-34-7	calcium chloride	1,600 mg/m <sup>3</sup>
7783-20-2	Ammonium Sulfate	840 mg/m <sup>3</sup>
150-13-0	p-Aminobenzoic Acid	410 mg/m <sup>3</sup>
10043-35-3	Boric Acid	830 mg/m <sup>3</sup>
7446-20-0	Zinc Sulfate heptahydrate	1,000 mg/m <sup>3</sup>
10034-96-5	Manganese Sulfate Monohydrate	90 mg/m <sup>3</sup>
7631-95-0	Sodium Molybdate	100 mg/m <sup>3</sup>
7705-08-0	iron trichloride	180 mg/m <sup>3</sup>
7681-11-0	Potassium Iodide	87 mg/m <sup>3</sup>
7758-98-7	copper sulphate	59 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.
- **Specific end use(s)** No further relevant information available.

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## 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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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:  | Powder                       |
| Color:   | White                        |
| · <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               |

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<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>	Not Determined
· <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>VOC content:</b>	0.00 %
· <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.  
Avoid contact with acids. Contact liberates a toxic gas.
- **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)**

150-13-0 p-Aminobenzoic Acid

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· **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.

## 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.

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· 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):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7783-20-2 Ammonium Sulfate

10034-96-5 Manganese Sulfate Monohydrate

7758-98-7 copper sulphate

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

7778-77-0 Potassium Phosphate Monobasic Anhydrous

ACTIVE

7647-14-5 Sodium Chloride

ACTIVE

59-23-4 D-(+)-Galactose Anhydrous, cell culture reagent

ACTIVE

7783-20-2 Ammonium Sulfate

ACTIVE

87-89-8 D-myo-Inositol

ACTIVE

150-13-0 p-Aminobenzoic Acid

ACTIVE

10043-35-3 Boric Acid

ACTIVE

58-56-0 Pyridoxine Hydrochloride

ACTIVE

59-67-6 nicotinic acid

ACTIVE

67-03-8 Thiamine Hydrochloride

ACTIVE

137-08-6 D-Pantothenic Acid Calcium Salt

ACTIVE

7631-95-0 Sodium Molybdate

ACTIVE

7705-08-0 iron trichloride

ACTIVE

83-88-5 riboflavin

ACTIVE

7681-11-0 Potassium Iodide

ACTIVE

7758-98-7 copper sulphate

ACTIVE

58-85-5 D-Biotin

ACTIVE

59-30-3 Folic Acid

ACTIVE

· **Hazardous Air Pollutants**

10034-96-5 Manganese Sulfate Monohydrate

· **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.

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

10043-35-3	Boric Acid	I (oral)
10034-96-5	Manganese Sulfate Monohydrate	D

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

10043-35-3	Boric Acid	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** 01/03/2020 / -

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