

## Safety Data Sheet acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

### 1 Identification

- **Product identifier**
- **Trade name:** CIRCLEGROW Sterile Solution
- **Article number:** 3000104
- **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.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

Trade name: **CIRCLEGROW Sterile Solution**

(Contd. of page 1)

· **Dangerous components:** Void

## 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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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:

113-24-6	Pyruvic acid sodium salt	30 mg/m <sup>3</sup>
77-86-1	TRIS	18 mg/m <sup>3</sup>
1185-53-1	Tris Hydrochloride	12 mg/m <sup>3</sup>

### · PAC-2:

113-24-6	Pyruvic acid sodium salt	330 mg/m <sup>3</sup>
77-86-1	TRIS	190 mg/m <sup>3</sup>
1185-53-1	Tris Hydrochloride	130 mg/m <sup>3</sup>

### · PAC-3:

113-24-6	Pyruvic acid sodium salt	2,000 mg/m <sup>3</sup>
77-86-1	TRIS	1,200 mg/m <sup>3</sup>

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

Trade name: **CIRCLEGROW Sterile Solution**

1185-53-1 Tris Hydrochloride

(Contd. of page 2)

790 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.

## 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:** Goggles recommended during refilling.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Solution
<b>Color:</b>	Light brown
<b>Odor:</b>	Indeterminate
<b>Odor threshold:</b>	Not determined.

(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

Trade name: **CIRCLEGROW Sterile Solution**

(Contd. of page 3)

· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b> <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <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> <b>Upper:</b>	Not Applicable Not Applicable
· <b>Vapor pressure:</b>	Not Applicable
· <b>Density:</b> · <b>Relative density</b> · <b>Vapor density</b> · <b>Evaporation rate</b>	Not Applicable Not determined. Not determined. Not determined.
· <b>Solubility in / Miscibility with</b> · <b>Water:</b>	Not Determined Not determined. Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic:</b> <b>Kinematic:</b>	Not determined. Not determined.
· <b>Solvent content:</b> <b>Water:</b> <b>VOC content:</b>	96.0 % 0.00 % 0.0 g/l / 0.00 lb/gal
<b>Solids content:</b> · <b>Other information</b>	4.0 % 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.

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

Trade name: **CIRCLEGROW Sterile Solution**

(Contd. of page 4)

## 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)**

None of the ingredients is listed.

- **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 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

Trade name: **CIRCLEGROW Sterile Solution**

(Contd. of page 5)

## 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.
<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>		
None of the ingredients is listed.		
<b>· Section 313 (Specific toxic chemical listings):</b>		
None of the ingredients is listed.		
<b>· TSCA (Toxic Substances Control Act):</b>		
8013-01-2	Yeast Extract Powder	ACTIVE
113-24-6	Pyruvic acid sodium salt	ACTIVE
77-86-1	TRIS	ACTIVE
1185-53-1	Tris Hydrochloride	ACTIVE
7732-18-5	Water	ACTIVE
<b>· Hazardous Air Pollutants</b>		
None of the ingredients is listed.		
<b>· Proposition 65</b>		
<b>· Chemicals known to cause cancer:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause reproductive toxicity for males:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause developmental toxicity:</b>		
None of the ingredients is listed.		

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2019

Reviewed on 09/20/2019

**Trade name: CIRCLEGROW Sterile Solution**

(Contd. of page 6)

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

- **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** 09/20/2019 / -

- **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