

## 1 Identification

- **Product identifier**
- **Trade name:** Chlorhexidine Digluconate, 20% Aqueous Solution
- **Article number:** 191360
- **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**



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Chlorhexidine Gluconate
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye damage.
- **Precautionary statements**  
Wear protective gloves / eye protection / face protection.  
Wash thoroughly after handling.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.  
Specific treatment (see on this label).  
If skin irritation occurs: Get medical advice/attention.  
IF ON SKIN: Wash with plenty of water.  
Take off contaminated clothing and wash it before reuse.

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· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Description:**

Mixture of substances listed below with nonhazardous additions.

Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 18472-51-0	Chlorhexidine Gluconate	10-50%
EINECS: 242-354-0		

· **Non-Hazardous Ingredients**

CAS: 7732-18-5	Water	50-90%
EINECS: 231-791-2		
RTECS: ZC0110000		

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** If breathed in, supply fresh air. If not breathing, give artificial respiration. Consult a Doctor.

· **After skin contact:** Wash off with soap and plenty of water. Consult a Doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **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.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
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).  
Use neutralizing agent.  
Pick up mechanically, dispose contaminated material as waste according to Section 13.
- **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**

· <b>PAC-1:</b>
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None of the ingredients is listed.
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· <b>PAC-2:</b>
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None of the ingredients is listed.
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· <b>PAC-3:</b>
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None of the ingredients is listed.
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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Avoid direct contact with skin. Use protective clothing including gloves, lab coat, face/eye protection.
- **Information about protection against explosions and fires:** No special requirements.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 2 - 8 °C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:** Protect from exposure to the light.
- **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.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the skin.  
 Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

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:**



Tightly sealed goggles

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Indeterminate
<b>Odor threshold:</b>	Not determined.

<b>pH-value at 20 °C (68 °F):</b>	5.5
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- **Change in condition**

<b>Boiling point/Boiling range:</b>	Undetermined.
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<b>Flash point:</b>	Not applicable.
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<b>Flammability (solid, gaseous):</b>	Not applicable.
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- **Ignition temperature:**

<b>Decomposition temperature:</b>	Not determined.
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· <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 at 20 °C (68 °F):</b>	23 hPa (17 mm Hg)
· <b>Density:</b>	Not Applicable
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	Not Determined
· <b>Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	80.0 %
<b>VOC content:</b>	0.0 g/l / 0.00 lb/gl
· <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.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

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· **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 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground.

· **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 together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

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

· **Recommended cleansing agent:** Water, if necessary with cleaning agents.

### 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA** UN3082

· **UN proper shipping name**

· **DOT** Environmentally hazardous substances, liquid, n.o.s. (Chlorhexidine Gluconate)

· **ADR** 3082 Environmentally hazardous substances, liquid, n.o.s. (Chlorhexidine Gluconate)

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· **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorhexidine Gluconate), MARINE POLLUTANT  
 · **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorhexidine Gluconate)

· **Transport hazard class(es)**

· **DOT, ADR, IMDG, IATA**



· **Class** 9 Miscellaneous dangerous substances and articles  
 · **Label** 9

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

· **Environmental hazards:** Product contains environmentally hazardous substances: Chlorhexidine Gluconate

· **Marine pollutant:** Yes (DOT)  
 Symbol (fish and tree)

· **Special marking (ADR):** Symbol (fish and tree)

· **Special marking (IATA):** Symbol (fish and tree)

· **Special precautions for user** Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):** 90

· **EMS Number:** F-A,S-F

· **Stowage Category** A

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations** On passenger aircraft/rail: No limit

On cargo aircraft only: No limit

· **Remarks:** Special marking with the symbol (fish and tree).

· **ADR**

· **Excepted quantities (EQ)** Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)** 5L

· **Excepted quantities (EQ)** Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CHLORHEXIDINE GLUCONATE), 9, III

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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):**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

· **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.

· **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** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Chlorhexidine Gluconate

· **Hazard statements**

Causes skin irritation.

Causes serious eye damage.

· **Precautionary statements**

Wear protective gloves / eye protection / face protection.

Wash thoroughly after handling.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

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*If skin irritation occurs: Get medical advice/attention.*

*IF ON SKIN: Wash with plenty of water.*

*Take off contaminated clothing and wash it before reuse.*

· **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** 01/30/2017 / -

· **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*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*