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1 Identification of the substance/mixture and of the company/undertaking

- · Product identifier
- · Trade name: 3M Magnesium Chloride Buffer
- · Article number: 20-7220-10
- · Registration number Magnesium chloride: 01-2119485597-19
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- · Application of the substance / the preparation Buffer solution
- Details of the supplier of the safety data sheet Severn Biotech Ltd.
 Unit 2, Park Lane, Kidderminster,
 Worcestershire.
 DY11 6TJ
 UK
 Tel: 0044 1562 825286
 Fax: 0044 1562 825284
 email: info@severnbiotech.com
- Further information obtainable from: Product safety department.
 Emergency telephone number: Tel: 0044 1562 825286 (not 24 hours)

2 Hazards identification

· Classification of the substance or mixture

- · Classification according to Regulation (EC) No 1272/2008
- The product is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable. • Information concerning particular hazards for human and environment:
- The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- · Classification system:
- The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· Label elements

- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: An aqueous solution of magnesium chloride with multifunctional additives.
- · Dangerous components: Void
- Additional information: For the wording of the listed risk phrases refer to section 16.

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4 First aid measures

- · Description of first aid measures
- \cdot General information: Immediately remove any clothing soiled by the product.
- · After inhalation:
- Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact:
- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.
- · After eye contact:
- Check for and remove any contact lenses.
- Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:
- Rinse out mouth and then drink plenty of water.
- Do not induce vomiting; call for medical help immediately.
- Information for doctor: Treat symptomatically and supportively.
- \cdot 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 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment:
- Wear fully protective suit.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- · Environmental precautions:
- Do not allow to enter sewers/ surface or ground water.
- Do not allow to penetrate the ground/soil.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable receptacles.

- Ensure adequate ventilation.
- 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.

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7 Handling and storage

- · Handling:
- \cdot Precautions for safe handling
- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.
- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
- Information about storage in one common storage facility: Store away from oxidizing agents.
- Further information about storage conditions: Protect from frost.
- Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

- · Control parameters
- · Ingredients 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 valid during the making were used as basis.

- · Exposure controls
- · Personal protective equipment:
- Select PPE appropriate for the operations taking place taking into account the product properties.
- · General protective and hygienic measures:
- Wash hands before breaks and at the end of work.
- Do not eat, drink, smoke or sniff while working.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes.

Avoid close or long term contact with the skin.

- · Respiratory protection: Not required.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 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:

Safety glasses

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Goggles recommended during refilling

• **Body protection:** Protective work clothing

9 Physical and chemical properties · Information on basic physical and chemical properties · General Information · Appearance: Form: Fluid **Colour:** Clear · Odour: Characteristic · Odour threshold: Not determined. · pH-value: Not determined. · Change in condition Melting point/Melting range: Undetermined. **Boiling point/Boiling range:** 100 °C Not applicable. · Flash point: · Flammability (solid, gaseous): Not applicable. · Ignition temperature: **Decomposition temperature:** Not determined. · Self-igniting: Product is not selfigniting. · Danger of explosion: Product does not present an explosion hazard. · Explosion limits: Not determined. Lower: Not determined. **Upper:** • Vapour pressure at 20 °C: 23 hPa 1.2 g/cm³ · Density at 20 °C: Not determined. · Relative density Not determined. · Vapour density Not determined. · Evaporation rate · Solubility in / Miscibility with water: Fully miscible. · Partition coefficient (n-octanol/water): Not determined. · Viscosity: **Dynamic:** Not determined. **Kinematic:** Not determined. · Other information No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

• Possibility of hazardous reactions No dangerous reactions known.

· Conditions to avoid No further relevant information available.

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- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: Hydrogen chloride (HCl)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- \cdot on the eye: No irritating effect.
- \cdot Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential Product is not expected to bioaccumulate.
- \cdot Mobility in soil No further relevant information available.
- \cdot Additional ecological information:
- · General notes:
- Water hazard class 1 (German Regulation) (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

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· European waste catalogue

Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

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• Recommended cleansing agents: Water, if necessary together with cleansing agents.

UN-Number	Void
ADR, ADN, IMDG, IATA	Void
UN proper shipping name	Void
ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	Void
ADR, ADN, IMDG, IATA	
Class	Void
Packing group	Void
ADR, IMDG, IATA	Void
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex	: II of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.

15 Regulatory information

· 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.