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## **MATERIAL SAFETY DATA SHEET**

### **Hepes Buffer**

#### **SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

##### **1.1 Product identifiers :**

Product name : Hepes Buffer  
Product number : 0007365459  
Brand : Discovery  
Reach No.: 01-2120054645-54-XXXX  
Cas No. : 7365-45-9

##### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: laboratory chemicals, manufacture of substances

##### **1.3 Details of the supplier of the safety data sheet**

Company: Discovery Fine Chemicals Ltd  
Unit 4A, Old Forge Road, Ferndown Ind. Estate,  
Wimborne, Dorset, BH21 7RR.  
United Kingdom  
Telephone: +44 (0)1202 874517  
Fax: +44 (0)845 0944 385  
E-mail: [discovery@discofinechem.com](mailto:discovery@discofinechem.com)

##### **1.4 Emergency telephone : +44 (0)7912 646956**

#### **SECTION 2. HAZARDS IDENTIFICATION**

##### **2.1 Classification of the substance or mixture**

###### **Classification according to Regulation (EC) No 1272/2008**

Not a hazardous substance or mixture according to regulation (EC) No.1272/2008.

##### **2.2 Label elements**

###### **Labelling according Regulation (EC) No 1272/2008**

Not a hazardous substance or mixture according to regulation (EC) No.1272/2008.

Precautionary statement(s)

P261 Avoid breathing dust.

P281 use personal protective equipment as required.

##### **2.3 Other hazards**

None

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

##### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

###### **3.1 Substances**

Hepes buffer

Formula: C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub>S, Molecular Weight: 238.30 g/mol

Cas No: 7365-45-9

EC Number 230-907-9

No components need to be disclosed according to the applicable regulations.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.

**If inhaled** - If breathed in, move person into fresh air.

**In case of skin contact** – Take off any contaminated clothes. Wash off soap and plenty of water. Consult a physician.

**In case of eye contact** - Rinse eyes with plenty of water.

#### If swallowed

After swallowing make victim drink two glasses of water. (at most)

**4.2 Most important symptoms and effects, both acute and delayed** – the most important known symptoms and effects are described in the labelling (see section 2.2 and/or in section 11).

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media** – use water foam carbon dioxide (CO<sub>2</sub>) dry powder

**Unsuitable extinguishing media** – for this substance no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides nitrogen oxides sulfur oxides

**5.3 Advice for firefighters** – wearing self-contained breathing apparatus.

**5.4 Further information** - no data available.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours or mist or gas.

**6.2 Environmental precautions** – do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up** – sweep up and shovel. Keep in closed containers.

**6.4 Reference to other sections** - For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

See section 2.2

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

**7.3 Specific end use(s)** - no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

**Appropriate engineering controls** - Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

**Eye/face protection** - Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection** - Handle with gloves. Gloves must be inspected prior to use.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

**Body Protection** – Choose appropriate body protection. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** – respiratory protection is not required. Dust masks type P1 (EU EN 143) may be used for a higher level of protection. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance - Form: powder, Colour:off white to off-white
  - b) Odour - no data available
  - c) Odour Threshold - no data available
  - d) Melting point/freezing point – approx. 234 deg c
  - e) Initial boiling point and boiling range - no data available
  - f) Flammability (solid, gas) - no data available
  - g) Upper/lower flammability or explosive limits - no data available
  - h) Flash point – not applicable
  - i) Autoignition temperature - no data available
  - j) Decomposition temperature - no data available
  - k) pH - 5.0- 6.5
  - l) Viscosity – viscosity,kinematic: no data available  
- viscosity dynamic: no data available
  - m) Water solubility – no data available
  - n) Partition coefficient: no data available
  - o) Vapour pressure - no data available
  - p) Density - no data available  
Relative density – no data available
  - q) Relative vapour density - no data available
  - r) Particle characteristics - no data available
  - s) Explosive properties – no data available
  - t) Oxidizing properties - no data available
- 9.2 Other safety information - no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

stable under standard storage conditions

### 10.3 Possibility of hazardous reactions

Violent reactions possible with strong oxidising agents

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire see section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - rat - 2000mg/kg

Remarks (RTECS)

Inhalation – no data available

Dermal – no data available

**Skin corrosion/irritation** - no data available

**Serious eye damage/eye irritation**

Eyes - no data available

**Respiratory or skin sensitization**

no data available.

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

### 11.2 Additional Information

RTECS: TL6809000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity** - no data available

**12.2 Persistence and degradability** - no data available

**12.3 Bio-accumulative potential** - no data available

**12.4 Mobility in soil** - no data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

**12.6 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects**

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Waste material may be offered to a licensed disposal company. contaminated packaging may be disposed of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

### 14.6 Special precautions for user

#### Further Information

Not classified as dangerous in the meaning of transport regulations

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## 16. OTHER INFORMATION

Precautionary statement(s)

P261 Avoid breathing dust.

P281 use personal protective equipment as required

#### Further information

#### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product.

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## APPENDIX

### ABBREVIATIONS FULL TEXT

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ALARP As low as is reasonably practicable

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging Regulations

COSHH Control of Substances Hazardous to Health EC Number European Community Number

EC50 Effective Concentration 50%

ECHA European Chemicals Agency

ELINCS European List of Notified Chemical Substances

EINECS European Inventory of Existing Commercial Chemical Substances GHS Globally Harmonised System HSE

Health & Safety Executive UK

IATA International Air Transport Association  
IM Intramuscular  
IMDG The International Maritime Dangerous Goods Code  
IP Intraperitoneal  
IV Intravascular  
LD50 Lethal Dose 50%  
LOEC Lowest Observable Effective Concentration  
LTEL Long Term Exposure Limit  
NOEC No Observable Effective Concentration  
OECD Organisation for Economic Cooperations and Development  
OSHA European Agency for Safety and Health at work  
PBT Persistent Bioaccumulative and Toxic substance  
PPE Personal Protective Equipment  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SC Subcutaneous  
SDS Safety Data Sheet  
SIEF Substance Information Exchange Forum  
STEL Short Term Exposure Limit  
STOT (RE) Specific Target Organ Toxicity – repeated exposure  
STOT (SE) Specific Target Organ Toxicity – single exposure  
SVHC Substance of Very High Concern  
VOC Volatile Organic Compounds  
vPvB Very Persistent and Very Bioaccumulative  
WEL Workplace Exposure Limits