SAFETY DATA SHEET according to Regulation (EG) No. 1907/2006 and Regulation (EU) No. 453/2010

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

1.1 Product identifier
- Trade name: SI+ buffer
- Product number: SI010-...
- Product description: Laboratory chemicals

1.2 Relevant identified uses of the substance or mixture and uses advised against
- General use: For research use only
- Uses advised against: Not intended for human or animal diagnostic or therapeutic uses

1.3 Details of the supplier of the safety data sheet (Manufacturer/Supplier)
- Company name: Biontex Laboratories GmbH
- Street/POB-No.: Landsberger Str. 234
- Postal Code/City: 80687 München, GERMANY
- Dept. responsible for information
- Telefon: +49 (0)89-32479950
- Telefax: +49 (0)89-32479952
- E-mail: contact@biontex.com
- WWW: www.biontex.com

1.4 Emergency telephone number
- Centre of detoxification
  - National (Germany): +49 89-19240
  - International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
- Classification according to EC Regulation Nr.1272/2008 (CLP) (Regulation (EC) Nr. 1907/2006 and Directive 2001/59/EC) or Globally Harmonized System (GHS)
  - Not classified

2.2 Label elements
  - None

2.2.1 Labelling (Regulations EC)
- Pictogram / Hazard symbol / Signal word
  - Not applicable
  - Health hazard: not hazardous
  - Physical hazard: not hazardous
  - Environmental hazards: not hazardous

List of all H and P phrases according to Regulation 1272/2008/EC
- Not applicable
- Hazard statements: none
- Precautionary statements: none
2.3 Other hazards
Based on present knowledge and when handled correctly, the product poses no danger for humans and the environment.
The usual minimum standards for protective measures in the chemical industry must be observed.
Results of PBT and vPvB assessment → Chapter 12

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances
This product is a mixture.

3.1.1 Chemical identity and characterisation:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>GHS classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI+ buffer</td>
<td>inorganic salts</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

3.2 Mixtures
Classification according to EC Reg. 1272/2008 and Directive 2001/59/EC (EU) not hazardous/concentrations do not exceed the specified limit
Chemical identity and characterisation: mixture with harmless ingredients
Hazardous ingredients not applicable
Index-No. not applicable
EG-No. not applicable
REACH-Registration-No. not applicable

4. FIRST AID MEASURES

4.1 Description of first aid measures
General information
Remove contaminated clothing immediately. Contaminated clothing should be laundered before reusing. Seek medical attention immediately if symptoms develop.
Inhalation
Remove victim to fresh air, if necessary seek medical advice. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Skin contact
Wash skin with plenty of water thoroughly. Remove contaminated clothing. In case of skin reactions, consult a physician.
Eye contact
Remove contact lenses. Immediately flush eyes with plenty of flowing water for at least 20 minutes, also under the eyelids. If necessary seek medical advice.
Swallowing / Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth with water thoroughly. If malaise develops, call a physician. Do not induce vomiting without medical advice.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant informations available.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically
5. **FIREFIGHTING MEASURES**

5.1 **Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable</th>
<th>Carbon dioxide (CO₂), dry-chemical or foam fire extinguisher, water spray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable</td>
<td>Water jet, otherwise there is a risk of spread of fire</td>
</tr>
</tbody>
</table>

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

Dangerous decomposition is not anticipated, do not breathe fumes of fire.

5.3 **Advice for firefighters**

- Wear self-contained breathing apparatus and protective suit.
- Use fine water spray to cool endangered containers (from a safe distance).
- Suppress gases/vapours/mists with water spray jet.
- Pay attention to backdraft.

6. **ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment / personal protection measures.

Keep unprotected persons away / evacuate personnel to safe areas.

Ensure adequate ventilation.

6.2 **Environmental precautions**

Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains/surface water/groundwater.

Additional special actions to limit damages are not necessary.

6.3 **Methods and material for containment and cleaning up**

Dilute spilled liquids with plenty of water and adsorb. Sweep or vacuum (if powder) or soak up with inert absorbent material (if liquid), then replace into a suitable clean, dry, closed container and label for disposal.

Never return spills in original containers for reuse.

6.4 **Reference to other sections**

- Information on safe handling ➔ Chapter 7
- Information on personal protection equipment ➔ Chapter 8
- Information for disposal ➔ Chapter 13

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**

Handling according to Guidelines for Laboratories.

- **Advises on safe handling**
  - Usual precautions when handling chemicals ➔ Chapter 8.
  - Handle with care and avoid unnecessary, prolonged or repeated exposure. Avoid inhalation.
  - Avoid contact with eyes, skin and clothing. Use protective equipment to minimize exposure.

- **Precautions against fire and explosion**
  - Autoignition does not occur.
  - No special precautions are necessary

- **Measures to prevent aerosol and dust generation**
  - No special precautions are necessary
SAFETY DATA SHEET according to Regulation (EG) No. 1907/2006 and Regulation (EU) No. 453/2010

Measures to protect the environment
No special precautions are necessary

General Hygiene measures
No special precautions are necessary

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
This item is supplied uncooled and should be stored at +2°C and +8°C immediately after receipt. Do not freeze. Keep container tightly closed. Use original container.

Requirements for store rooms and containers/hints on joint storage
There is no restriction and/or requirements for storage with other materials.

Storage class
10-13 Other liquids and solids

7.3 Specific end uses(s)
Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameter
None

8.1.1 Occupational exposure limit values / biological limit values
The product does not contain any relevant quantities of materials with critical value that have to be monitored.

8.1.2 Control Banding (e.g. ILO) and DNEL/DMEL, PNEC value(s)
None

8.2 Exposure controls
Exposure limitation and controlling are workplace related and must be regulated by the user.

8.2.1 Appropriate technical safety devices
Technical measures and appropriate working operations are just as important as the use of personal protective equipment. Provide good ventilation and/or an exhaust system in the work area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

8.2.2 Personal protective equipment
Personal protective equipment should be selected specifically for the workplace.

Eye / Face protection
Tightly sealed goggles. Ensure that eyewash stations are proximal to the workstation.

Skin / Body protection
Wear protective clothes. Ensure that safety showers are proximal to the workstation.

Hand protection
Protective gloves - the material has to be impermeable and resistant to the product. Break through time, permeation and degradation has to be found out by the manufacturer of the protective gloves and has to be observed.

Breathing protection
Not required
General protection and hygiene measures
The usual precautionary measures are to be adhered to when handling chemicals.
Change contaminated clothing immediately.
After contact clean skin with soap and water or use appropriate detergent.
Wash hands before breaks and after work. Keep out of reach of children.
Keep away from food, drink and animal feed. Do not eat, drink or smoke during work.

8.2.3 Environmental exposure controls
Information on environmental exposure ➔ Chapter 6, 7 und 12

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: liquid
Colour/Odour: colorless/mild characteristic odour
pH value: no data available
Evaporation rate: no data available
Melting point/range: no data available
Boiling point/range: at ~ 100°C
Flash point: no data available
Ignition temperature (solid/gaseous): no data available
Autoignition temperature: no data available
Oxidising properties: no data available
Vapour pressure/density: no data available
Relative density: no data available
Bulk density: no data available
Water solubility 20°C in g/l: completely
Partition coefficient n-Octanol/water: no data available
Viscosity kinematic/ dynamic: no data available
Dust explosion hazard: no data available
Explosion properties: no data available
Explosion limits (lower/upper): no data available
Substance groups relevant properties: no data available
Surface tension: no data available
Solvent content (organic/water): no data available
Solids content: none
Decomposition: no data available

9.2 Other information
No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Product is stable under normal storage conditions and if it is used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known under conditions of normal use, handling and storage.
10.4 Conditions to avoid
No dangerous reactions known under conditions of normal use, handling and storage.

10.5 Incompatible materials
Unknown

10.6 Hazardous decomposition products
No hazardous decomposition known under conditions of normal use, handling and storage.

10.7 Polymerisation
Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

11.1 Information to toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (LD₅₀/LC₅₀)</td>
<td>unknown</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>may cause irritation/allergic sensitization</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>may cause irritation/allergic sensitization</td>
</tr>
<tr>
<td>Aspiration</td>
<td>may cause irritation/allergic sensitization</td>
</tr>
<tr>
<td>Ingestion</td>
<td>may cause irritation/allergic sensitization</td>
</tr>
<tr>
<td>CMR category</td>
<td>it does not meet the criteria for one of the categories</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Mutagenic effects/Reproductive toxicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Sensitisation</td>
<td>unknown</td>
</tr>
<tr>
<td>Target organ effects (single or repeated exposure)</td>
<td>no known effects under normal use conditions</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No effects or hazards known

12.2 Persistence and degradability
No effects or hazards known

12.3 Bioaccumulative potential
No effects or hazards known

12.4 Mobility in soil
No effects or hazards known

12.5 Results of PBT and vPvB assessment
The substance does not meet the criteria for a classification
PBT: not applicable
vPvB: not applicable

12.6 Other adverse effects
No data available
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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of in accordance with local regulations and national laws and provisions.

13.2 Contaminated/appropriate packaging
Dispose of empty packs via local recycling or waste disposal routes, if necessary, clean them beforehand.

13.3 Additional information
- Prevent discharge of the liquid into the sewage system, cesspit and cellars.
- Vapours can form potentially explosive atmosphere.
- Waste disposal must be in accordance with appropriate Federal, State and local regulations.
- This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

14. TRANSPORT INFORMATION

14.1 UN number
None

14.2 UN proper shipping name
None

14.3 Transport hazard class(es)
None
Is not subject to current regulations for transportation of dangerous goods (ADR/RID, ADN, IMDG, IATA/ICAO). The product is not hazardous to ship.

14.4 Packing group
None

14.5 Environmental hazards
None

14.6 Special precautions for user
Not applicable → Chapter 6 - 8

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

15. REGULATORY INFORMATION

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

EU regulations
Respectively in the latest version incl. all amendments, additions and corrections.
- CLP Regulation EC No. 1272/2008 not applicable
- Regulation (EC) 1005/2009 not applicable
- (Substances that deplete the Ozon Layer)
SAFETY DATA SHEET according to Regulation (EG) No. 1907/2006 and Regulation (EU) No. 453/2010

Regulation (EC) 850/2004 (Persistent organic pollutants) not applicable
Regulation (EU) 649/2012 (Export and import of dangerous chemicals) not applicable
Regulation (EC) 648/2004 (Detergents) not applicable
Directive 94/62 EC not applicable

National regulations (Germany)
Compliance with applicable agreements, regulations and laws of the respective country
Classification according to GefStoffV. / BRD no
Technical Instruction Air (TA Luft) not classified
Information on employment restrictions none
German regulation for flammable liquids is not subject of this regulation
(BetriebssicherheitsVO)
Water hazard class not hazardous to water
Solvents Regulations (31. BImSchV) not applicable
Hazardous Incident Ordinance (12. BImSchV) not applicable

Other relevant regulations, restrictions and prohibition regulations
None

Inventory status
SDR/GGBV/Inventory of Notified New Substances not listed (SWISS)

15.2 Chemical safety assessment
Not been carried out.

16. OTHER INFORMATION

16.1 Issuing institution
Department issuing SDS
Department of Health, Safety and Environmental Protection
Contact
Dr. Roland Klösel

16.2 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)
ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
CAS Chemical Abstracts Service (Division of the American Chemical Society)
CLP Classification, Labelling and Packaging
CMR Carcinogenic, Mutagenic, toxic for Reproduction
DMEL Derived Minimal Effect Level
DNEL Derective No Effect Level
GGBV Gefahrstoffbeauftragtenverordnung Schweiz
GHS Globally Harmonized System of Classification and Labelling of Chemicals
IATA International Air Transport Association
IBC Intermediate Bulk Container
ICAO International Civil Aviation Organization
ILO International Labour Organization
IMDG International Maritime Code for Dangerous Goods
SAFETY DATA SHEET according to Regulation (EG) No. 1907/2006 and Regulation (EU) No. 453/2010

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC₅₀</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD₅₀</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Marine Pollution from Ships</td>
</tr>
<tr>
<td>PBT</td>
<td>persistent, bioaccumulative, toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Transport of dangerous goods by rail)</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation and Authorization of Chemicals (Registrierung, Bewertung und Zulassung von Chemikalien)</td>
</tr>
<tr>
<td>SDR</td>
<td>Verordnung über die Beförderung gefährlicher Güter auf der Strasse, Schiene, Gewässer (Schweiz)</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very persistent, very bioaccumulative</td>
</tr>
</tbody>
</table>

16.3 Further information
The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. However, Biontex does not warrant the accuracy of this information.
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