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

1.1 Product identifier

Trade name: METAFECTENE® SI
Product number: T100-
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: 01149 89-32479950
Telefax: 01149 89-32479952
E-mail: contact@biontex.com
WWW: www.biontex.com

1.4 Emergency telephone number

Centre of detoxification:
USA or Canada: +1 800-424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Globally Harmonized System (GHS):
Not classified as hazardous.
Skin corrosion/irritation:
Not classified.
Eye damage/irritation:
Not classified.

2.2 Label elements

Classification according to Globally Harmonized System (GHS):
None.

2.2.1 GHS US labeling

Signal word:
Not applicable.

Pictogram / Hazard symbol:
Not applicable.
Health hazard:
Not hazardous.
Physical hazard:
Not hazardous.
Environmental hazards:
Not hazardous.

Hazard statements:
None.

Hazard-determining components of labeling:
None.

Precautionary statements

⇒ Chapter 4, 6, 7, 13

Classification system

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA/HMIS ratings (scale 0 - 4)

OSHA Hazard Overview (Criteria according to 29CFR1910.1200)
Not applicable

2.3 Other hazards / Hazards not otherwise classified

None

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>METAECTENE® SI+</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>SI+-buffer</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

3.2 Mixtures

Classification according to Globally Harmonized System (GHS)

- Reagent: synthetic lipids in water
- Buffer: inorganic salts

Chemical identity and characterisation

- Hazardous ingredients: not applicable
- UN-No.: not applicable

3.3 Additional information

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Regulation 1907/2006/EC and Directive 2001/59/EC (EU).

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.

www. biontex.com
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
No information available for special treatment. Treat symptomatically.
After first aid, get appropriate in-plant, paramedic, or community medical support if exposure symptoms persist.

4.4 Special precautions/procedures
None

4.5 Notes to physician
Treat symptomatically

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable Carbon dioxide (CO₂), dry-chemical or foam fire extinguisher, water spray
Unsuitable Water jet, otherwise there is a risk of spread of fire

5.2 Special hazards arising from the substance or mixture
Dangerous decomposition is not anticipated, do not breath 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.
SAFETY DATA SHEET according to OSHA HazCom Standard 29 CFR 1910.2100(g), Rev. 2012 and GHS Rev 03

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.

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 35,6°F and 46,4°F (2°C - 8°C) immediately after receipt. Keep container tightly closed. Use original container.

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

Storage class/storage in one common storage facility
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 for specific application.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameter
None

8.1.1 Occupational exposure limit / biological limit
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, OSHA)
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 an eyewash station is 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.
Remove contaminated clothing immediately and wash it before re-use.
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/in work areas.

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

8.3 Engineering measures
Always provide fresh air.
Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance/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 ~ 212°F (100°C)
Flash point no data available
Flammability (solid, gaseous) no data available
Ignition temperature (solid/gaseous) no data available
Autoignition temperature no data available
Oxidising properties no data available
SAFETY DATA SHEET according to OSHA HazCom Standard 29 CFR 1910.2100(g), Rev. 2012 and GHS Rev 03

Vapour pressure: no data available
Vapour density: no data available
Relative density: no data available
Bulk density: no data available
Water solubility: 68°F (20°C) in g/l completely
Partition coefficient n-Octanol/Wasser: no data available
Viscosity, kinematic: no data available
Viscosity, 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 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 Thermal decomposition products
No decomposition known if used according to specifications.

10.7 Hazardous decomposition products
No dangerous decomposition products known.

10.8 Polymerisation
Hazardous polymerisation does not occur.

10.9 Incompatible materials
No further relevant information available.
11. **TOXICOLOGICAL INFORMATION**

11.1 Information to toxicological effects

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (LD$<em>{50}$/LC$</em>{50}$)</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>Germ cell mutagenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Mutagenic effects/Reproductive toxicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>EPA</td>
<td>none of the ingredients are listed</td>
</tr>
<tr>
<td>TLV (established by ACGIH)</td>
<td>none of the ingredients are listed</td>
</tr>
<tr>
<td>NIOSH</td>
<td>none of the ingredients are listed</td>
</tr>
<tr>
<td>NTP</td>
<td>none of the ingredients are listed</td>
</tr>
<tr>
<td>OSHA</td>
<td>none of the ingredients are listed</td>
</tr>
<tr>
<td>IARC</td>
<td>not classified</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>
<tr>
<td>Chronic effects from short/long-term exposure</td>
<td>no information available</td>
</tr>
<tr>
<td>Numerical measures of toxicity</td>
<td>no information available</td>
</tr>
<tr>
<td>Assessment of other acute effects</td>
<td>no information available</td>
</tr>
</tbody>
</table>

12. **ECOLOGICAL INFORMATION**

12.1 Toxicity / Ecotoxicity

No effects or hazards known.

12.2 Aquatic toxicity

No further relevant information available.

12.3 Persistence and degradability

No effects or hazards known.

12.4 Bioaccumulative potential

No effects or hazards known.

12.5 Mobility in soil

No effects or hazards known.

12.6 Results of PBT and vPvB assessment

The substance does not meet the criteria for a classification.

PBT not applicable

vPvB not applicable

12.7 Other adverse effects

No data available.
SAFETY DATA SHEET according to
OSHA HazCom Standard 29 CFR 1910.2100(g), Rev. 2012 and GHS Rev 03

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, IMO, ADN, IMDG/EmS, IATA/ICAO, DOT, MERCOSUR).
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

U.S. Federal Regulations
Respectively in the latest version incl. all amendments, additions and corrections.
SARA/CERCLA not listed
TSCA not listed
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) not contains HAPs
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

AICS   Australian Inventory of Chemical Substances
ADR    Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADN    Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ACGIH  American Conference of Governmental Industrial Hygienists
CAS    Chemical Abstracts Service (Division of the American Chemical Society)
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOT    Department of Transportation
(N)DSL Canadian (Non-)Domestic Substance List
EmS    Emergency Schedule
EPA    Environmental Protection Agency
ENCS   Japanese Existing and New Chemical Substances
GHS    Globally Harmonized System of Classification and Labelling of Chemicals
HMIS   Hazardous Materials Identification System
IARC   International Agency for Research on Cancer
IATA   International Air Transport Association
IBC    Intermediate Bulk Container
ICAO   International Civil Aviation Organization
IECSC  Existing Chemical Substances Produced or Imported in China
ILO    International Labour Organization
IMDG   International Maritime Code for Dangerous Goods
IMO    International Maritime Organization
KECI   Korean Existing Chemicals Inventory

Other relevant regulations, restrictions and prohibition regulations
None

Inventory status

WHMIS hazard class (Canada) not listed
NDSL/DSL (Canada) not listed
AICS (Australia) not listed
ENCS/PACS (Japan) not listed
IECSC (China) not listed
KECI (Korea) not listed
NECI/TCSA (Taiwan) not listed
NZIoC (New Zealand) not listed
PICCS (Phillippines) not listed

15.2 Chemical safety assessment
Not been carried out.
LC₅₀ / LD₅₀ Lethal concentration, 50 percent / Lethal dose, 50 percent
MARPOL International Convention for the Prevention of Marine Pollution from Ships
MERCOSUR Mercado Común del Sur
NECI Taiwan’s National Existing Chemical Inventory
NIOSH National Institute for Occupational Safety and Health
NZIoC New Zealand Inventory of Chemicals
NFPA National Fire Protection Association
NTP National Toxicology Program
OSHA Occupational Safety & Health Adminstration
PACS Japanese Priority Assessment Chemical Substances
PBT Persistent, Bioaccumulative, Toxic
PICCS Philippine Inventory of Chemicals and Chemical Substances
RID Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Transport of dangerous goods by rail)
SARA The Superfund Amendments and Reauthorization Act
TLV Threshold Limit Value
TSCA Toxic Substances Control Act
TCSCA Toxic Chemical Substances Control Act in Taiwan
UN No. United Nation Numer
vPvB Very persistent, very bioaccumulative
WHMIS Workplace Hazardous Materials Information System

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.
All materials and mixtures may present unknown hazards and should be used with caution. When necessary or appropriate, independent opinions regarding the risk of handling or exposure should be obtained from trained professionals.
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