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

Preparation Name:

M.Fsp4H I – DNA methyltransferase - buffered aqueous glycerol solution.

(Supplied with: SE-buffer B, SAM-solution).

Source:

An *E. coli* strain that carries M.Fsp4HI gene from *Flavobacterium* species 4H.

Catalogue numbers of the product:

M001, SM001, MM001, LM001 (depending on the quantity).

Use of the preparation:

For laboratory use.

Company identification:

SibEnzyme Ltd.

2/12 Timakova Str.

630117 Novosibirsk

Russia

Telephone: +7 383 333 4991

Telephone/Fax: +7 383 333 6853

Site: [http://www.sibenzyme.com](http://www.sibenzyme.com)

E-mail: [info@sibenzyme.com](mailto:info@sibenzyme.com)

Emergency telephone number:

+7 383 333 6853
Ingredients:

1. M.Fsp4H I                < 0.1% (w/v)  EC#   CAS#
2. Glycerol                     50% (v/v)  EC#200-289-5 CAS#56-81-5
3. Sodium chloride                     < 1% (w/v)  EC#231-598-3 CAS#7647-14-5
4. Tris-HCl       < 1% (w/v)
(mix of Tris (Trometamol)    EC#201-064-4  CAS#77-86-1
and Hydrochloric acid     EC#231-595-7  CAS#7647-01-0)
5. EDTA (disodium salt)       < 0.01% (w/v)  EC#205-358-3 CAS#139-33-3
6. DTT (Dithiothreitil)   < 0.1% (w/v)  EC#222-468-7 CAS#3483-12-3
7. Water                  ~ 48% (v/v)  EC#231-791-2 CAS#7732-18-5


3. HAZARDS IDENTIFICATION

The preparation is not classified as dangerous according to Directive 1999/45/EC or Directive 67/548/EC, and is not labelled with danger symbols or indications of danger.

Hazards deriving from physical-chemical properties:

The data available do not support any physical or chemical hazard.

Human health hazards:

Aqueous glycerol enzyme solutions are aerosol-free preparations. However, inappropriate handling may cause formation of aerosols. Inhalation of enzyme aerosols may cause allergic type reactions in sensitized individuals. Prolonged skin contact may cause minor irritation. Caution: Avoid inhalation, ingestion, and skin contacts.

Environmental hazards:

The data available do not support any environmental hazard.

4. FIRST-AID MEASURES

Ingestion:

If swallowed, rinse mouth and throat thoroughly with water. Consult a doctor in event of any complaints.

Inhalation:

If inhaled, remove victim from area of exposure. If symptoms of irritation or respiratory allergy occur, consult a doctor.

Skin contact:

Generally, the product does not irritate the skin. If symptoms of irritation after prolonged exposure occur, consult a doctor.

Eye contact:

In case of contact, wash out opened eyes with plenty of water for several minutes. Consult a doctor in event of any complaints.
5. FIRE-FIGHTING MEASURES

The preparation cannot cause fire.

Suitable extinguishing agents:
Water spray, Carbon Dioxide, dry chemical powder or appropriate foam.

Not suitable extinguishing agents:
None.

Special exposure hazards from decomposition products:
Not thoroughly investigated.

Protective equipment:
Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage. In case of vapour/aerosol formation, wear suitable respiratory protection means. Ventilate the area.

Environmental precautions:
No special measures required.

Methods for cleaning up:
Absorb spillages with liquid-binding material. Ventilate and wash the area after the spillage is completely removed.

Additional information:
No dangerous substances are released.

7. HANDLING AND STORAGE

Handling:
No further requirements.

Use appropriate personal protection measures (see Section 8). Avoid any contact with the liquid. Avoid the formation of aerosols. Ventilate area.

Storage:
Store at -20°C.
None other specific requirements relating to the preparation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.

General protective and hygienic measures:
The usual precautionary measures are the same as for chemicals handling.

**Engineering measures:**
None specific requirements relating to the preparation.

**Personal protection:**
- **Respiratory protection:** No special measures required.
- **Hand protection:** Wear rubber gloves. None special requirements to rubber.
- **Eye protection:** No need to wear glasses (goggles) when ordinary operations with the preparation. Safety glasses are recommended during certain operations when aerosol formation is possible.
- **Skin protection:** The usual precautionary measures accepted in research laboratories, e.g. protective clothes (gowns). None specific requirements.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Liquid.
**Colour:** Colourless.
**Odour:** Odourless.
**pH-value at 25°C:** 7.6.
**Boiling point:** 182°C.
**Melting Point:** 20°C.
**Flash Point:** Not applicable.
**Flammability/autoflamability:** The preparation is not flammable/self-igniting.
**Explosive properties:** The preparation does not possess explosive properties.
**Oxidizing properties:** Not applicable.
**Vapour pressure:** Not applicable.
**Relative density at 20°C:** 1.13 g/cm³.
**Solubility in/miscibility with water:** Fully miscible.
**Fat solubility:** Not applicable.
**Vapour density:** Not applicable.
**Evaporation rate:** Not applicable.
**Conductivity:** Not applicable.
**Viscosity:** Viscous.

### 10. STABILITY AND REACTIVITY

**Stability:**
Stable under storage conditions (see Section 7).

**Conditions to avoid:**
No conditions which may cause dangerous reactions.

**Possibility of hazardous reactions:**
No dangerous reactions known.

**Materials to avoid:**
No materials which may cause dangerous reactions.

**Hazardous decomposition products:**
No dangerous decomposition products known.
**Hazardous polymerization:**
Will not occur.

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**11. TOXICOLOGICAL INFORMATION**

**Routes of exposure:**
- **Inhalation:** Inhalation of aerosols may cause allergic type reactions in sensitized individuals.
- **Ingestion:** Repeated ingestion or excessive dosage may cause irritation of the gastrointestinal tract.
- **Skin and eye contact:** Generally, the product does not irritate the skin and eyes. Prolonged skin or eye contact may cause minor irritation.

**Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects.

The product is not listed in a priority list as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of the existing substances.

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:**
The preparation is considered not dangerous to the environment with respect to mobility, persistence and degradability, bioaccumulation, aquatic toxicity and other data relating to ecotoxicity.

**Persistence and degradability:**
The preparation is readily biodegradable.

**Bioaccumulative potential:**
It is considered that the preparation does not accumulate in biota, and does not pass through the food chain.

**Other adverse effects:**
Not applicable.

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**13. DISPOSAL CONSIDERATIONS**

The disposal of the product does not present a danger.

No special disposal methods required, except to be in accordance with current local environmental regulations.

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**14. TRANSPORT INFORMATION**

**Special precautions:**
None known.

**Proper shipping name:**
Not dangerous goods according to transport regulations.
National transport regulations:
No additional national transport regulations are known to the supplier.

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<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>Non-hazardous for sea freight.</td>
</tr>
<tr>
<td>ADR</td>
<td>Non-hazardous for road transport.</td>
</tr>
<tr>
<td>RID</td>
<td>Non-hazardous for rail transport.</td>
</tr>
<tr>
<td>ICAO/IATA</td>
<td>Non-hazardous for air transport.</td>
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</tbody>
</table>

Other information:
The preparation may be stored in ice during the transportation.

15. REGULATORY INFORMATION

US
Labelling according to US Regulations: Caution: Avoid contact and inhalation.
US Regulatory information: SARA LISTED: No.

EU
Labelling according to EU Guidelines: The preparation is not dangerous within the meaning of Directives 67/548/EC, 1999/45/EC, and 88/379/ECC, and is not labelled with danger symbols or indications of danger.

Canada
WHMIS classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No.
NDSL: No.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SibEnzyme shall not be held liable for any damage resulting from handling or from contact with the above product.