#EA003 Duplex-specific nuclease

- DSN enzyme, lyophilized, 10 Kunitz-units
- DSN storage buffer
- 10x DSN master buffer
- 2x DSN stop solution
- Control template
1. **IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1 **Product identifier**
- **Product name:** DSN enzyme, lyophilized, 10 Kunitz-units
- **Product number:** N/A
- **Kit name:** Duplex-specific nuclease
- **Kit number:** EA003
- **Brand:** Evrogen

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
- **Identified uses:** Laboratory chemicals, FOR RESEARCH USE ONLY

1.3 **Details of the supplier of the safety data sheet**
- **Company:** Evrogen JSC
  - Miklukho-Maklaya str, 16/10, 117997, Moscow, Russia
- **Telephone:** +7(495)988-4084
- **Fax:** +7(495)988-4085
- **Email address:** evrogen@evrogen.com

2. **HAZARDS IDENTIFICATION**

2.1 **Classification of the substance or mixture**
Not a dangerous substance according to GHS.
This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.2 **Label elements**
This product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 **Other hazards**
none

3. **COMPOSITION/INFORMATION OF INGREDIENTS**

3.1 **Chemical characterization**
- **Description:** Lyophilized substance, consisting of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No:</th>
<th>Concentration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplex-specific nuclease</td>
<td>no data available</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

4. **FIRST AID MEASURES**

4.1 **Description of first aid measures**
- **If inhaled**
  If breathed in, move person into fresh air. If not breathing, give artificial respiration.
- **In case of skin contact**
  Wash off with soap and plenty of water.
- **If swallowed**
  Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 **Most important symptoms and effects, both acute and delayed**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
4.3 Indication of immediate medical attention and special treatment needed
no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Nature of decomposition products not known.

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

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 vapors, 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 suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.
Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C

7.3 Specific end uses
No further relevant information available

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1 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.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures
The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are
desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components
tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique
(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

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

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9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: Lyophilized</td>
</tr>
<tr>
<td></td>
<td>Colour: White</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
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</tr>
<tr>
<td>Partition coefficient: noctanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>

9.2 **Other safety information**

no data available

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10. **STABILITY AND REACTIVITY**

10.1 **Reactivity**

no data available

10.2 **Chemical stability**

no data available

10.3 **Possibility of hazardous reactions**

No dangerous reactions known

10.4 **Conditions to avoid**

no data available

10.5 **Incompatible materials**

no data available

10.6 **Hazardous decomposition products**

No dangerous decomposition products known

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11. **TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects**

**Acute toxicity:** no data available

**Primary irritant effect on the skin:** not determined
Primary irritant effect on the eye: not determined
Sensitization: No sensitizing effects known.

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

Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. The product is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
General advice: The product has to be disposed of as laboratory chemical in accordance with local regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

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: - IATA: -
IMDG: -

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 users
no data available

15. REGULATORY INFORMATION

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or
mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further 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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Evrogen shall not be held liable for any damage resulting from handling or from contact with the above product.
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

- **Product name:** DSN storage buffer
- **Product number:** N/A
- **Kit name:** Duplex-specific nuclease
- **Kit number:** EA003
- **Brand:** Evrogen

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

- **Identified uses:** Laboratory chemicals, FOR RESEARCH USE ONLY

1.3 Details of the supplier of the safety data sheet

- **Company:** Evrogen JSC
  - Miklukho-Maklaya str, 16/10, 117997, Moscow, Russia
- **Telephone:** +7(495)988-4084
- **Fax:** +7(495)988-4085
- **Email address:** evrogen@evrogen.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

- Not a dangerous substance according to GHS.
- This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.2 Label elements

- This product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards

- none

3. COMPOSITION/INFORMATION OF INGREDIENTS

3.1 Chemical characterization

**Description:** Solution, consisting of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No:</th>
<th>Concentration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>&gt;90%</td>
</tr>
<tr>
<td>Tris (hydroxymethyl) aminomethane hydrochloride</td>
<td>1185-53-1</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

- **If inhaled**
  - If breathed in, move person into fresh air. If not breathing, give artificial respiration.
- **In case of skin contact**
  - Wash off with soap and plenty of water.
- **If swallowed**
  - Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatment needed
no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Nature of decomposition products not known.

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

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 vapors, 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 suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.
Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C

7.3 Specific end uses
No further relevant information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 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.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures
The usual precautionary measures are to be adhered to when handling chemicals.
Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance
Form: Liquid
Colour: Colourless
Odour:
Characteristic
Odour threshold
no data available
pH
no data available
Melting/freezing point
no data available
Initial boiling point and boiling range
no data available
Flash point
no data available
Evaporation rate
no data available
Flammability (solid, gas)
no data available
Upper/lower flammability or explosive limits
no data available
Vapour pressure
no data available
Vapour density
no data available
Relative density
no data available
Water solubility
no data available
Partition coefficient: noctanol/water
no data available
Autoignition temperature
no data available
Decomposition temperature
no data available
Viscosity
no data available
Explosive properties
no data available
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
no data available
10.3 Possibility of hazardous reactions
No dangerous reactions known
10.4 Conditions to avoid
no data available
10.5 Incompatible materials
no data available
10.6 Hazardous decomposition products
No dangerous decomposition products known

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity: no data available
Primary irritant effect on the skin: not determined
Primary irritant effect on the eye: not determined
Sensitization: No sensitizing effects known.

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

Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The product is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
General advice: The product has to be disposed of as laboratory chemical in accordance with local regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

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 users
no data available

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further 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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Evrogen shall not be held liable for any damage resulting from handling or from contact with the above product.
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product name: 10x DSN master buffer
Product number: N/A
Kit name: Duplex-specific nuclease
Kit number: EA003
Brand: Evrogen

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, FOR RESEARCH USE ONLY

1.3 Details of the supplier of the safety data sheet
Company: Evrogen JSC
Miklukho-Maklaya str, 16/10,
117997, Moscow, Russia
Telephone +7(495)988-4084
Fax +7(495)988-4085
Email address: evrogen@evrogen.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Not a dangerous substance according to GHS.
This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.2 Label elements
This product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards none

3. COMPOSITION/INFORMATION OF INGREDIENTS

3.1 Chemical characterization
Description: Solution, consisting of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No:</th>
<th>Concentration</th>
</tr>
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<tbody>
<tr>
<td>water</td>
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<td>1185-53-1</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>hydrochloride</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnesium chloride</td>
<td>7786-30-3</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>dithiothreitol</td>
<td>3483-12-3</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 **Most important symptoms and effects, both acute and delayed**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 **Indication of immediate medical attention and special treatment needed**
no data available

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5. **FIRE-FIGHTING MEASURES**

5.1 **Extinguishing media**
**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 **Special hazards arising from the substance or mixture**
Nature of decomposition products not known.

5.3 **Precautions for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 **Further information**
no data available

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6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Avoid dust formation. Avoid breathing vapors, 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 suitable, closed containers for disposal.

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

---

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Provide appropriate exhaust ventilation at places where dust is formed.
Normal measures for preventive fire protection.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C

7.3 **Specific end uses**
No further relevant information available

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8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **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.

8.2 **Exposure controls**
**Personal protective equipment:**
**General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are
desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: noctanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>

9.2 **Other safety information**

no data available

10. **STABILITY AND REACTIVITY**

10.1 **Reactivity**

no data available

10.2 **Chemical stability**

no data available

10.3 **Possibility of hazardous reactions**

No dangerous reactions known

10.4 **Conditions to avoid**

no data available

10.5 **Incompatible materials**

no data available

10.6 **Hazardous decomposition products**

No dangerous decomposition products known

11. **TOXICOLOGICAL INFORMATION**
11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Primary irritant effect on the skin:** not determined

**Primary irritant effect on the eye:** not determined

**Sensitization:** No sensitizing effects known.

**Signs and Symptoms of Exposure:**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. The product is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

**Product:**

**General advice:** The product has to be disposed of as laboratory chemical in accordance with local regulations.

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

14. TRANSPORT INFORMATION

14.1 UN-Number

<table>
<thead>
<tr>
<th>ADR/RID:</th>
<th>IMDG:</th>
<th>IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

14.2 UN proper shipping name

<table>
<thead>
<tr>
<th>ADR/RID:</th>
<th>IMDG:</th>
<th>IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Not dangerous goods</td>
<td>-</td>
</tr>
</tbody>
</table>

14.3 Transport hazard class(es)

<table>
<thead>
<tr>
<th>ADR/RID:</th>
<th>IMDG:</th>
<th>IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Not dangerous goods</td>
<td>-</td>
</tr>
</tbody>
</table>

14.4 Packaging group

<table>
<thead>
<tr>
<th>ADR/RID:</th>
<th>IMDG:</th>
<th>IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards

<table>
<thead>
<tr>
<th>ADR/RID:</th>
<th>IMDG Marine pollutant:</th>
<th>IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

14.6 Special precautions for users
no data available
15. **REGULATORY INFORMATION**

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

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

no data available

15.2 **Chemical Safety Assessment**

no data available

16. **OTHER INFORMATION**

**Further 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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Evrogen shall not be held liable for any damage resulting from handling or from contact with the above product.
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: 2x DSN stop solution
Product number: N/A
Kit name: Duplex-specific nuclease
Kit number: EA003
Brand: Evrogen

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

Identified uses: Laboratory chemicals, FOR RESEARCH USE ONLY

1.3 Details of the supplier of the safety data sheet

Company: Evrogen JSC
Miklukho-Maklaya str, 16/10, 117997, Moscow, Russia
Telephone +7(495)988-4084
Fax +7(495)988-4085
Email address: evrogen@evrogen.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a dangerous substance according to GHS.
This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.2 Label elements

This product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards

none

3. COMPOSITION/INFORMATION OF INGREDIENTS

3.1 Chemical characterization

Description: Solution, consisting of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No:</th>
<th>Concentration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>&gt;90%</td>
</tr>
<tr>
<td>ethylenediaminetetraacetic acid</td>
<td>6381-92-6</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>disodium dihydrate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 **Indication of immediate medical attention and special treatment needed**
no data available

5. **FIRE-FIGHTING MEASURES**

5.1 **Extinguishing media**
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 **Special hazards arising from the substance or mixture**
Nature of decomposition products not known.

5.3 **Precautions for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.

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 vapors, 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 suitable, closed containers for disposal.

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

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Provide appropriate exhaust ventilation at places where dust is formed.
Normal measures for preventive fire protection.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C

7.3 **Specific end uses**
No further relevant information available

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **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.

8.2 **Exposure controls**

*Personal protective equipment:*
*General protective and hygienic measures*
The usual precautionary measures are to be adhered to when handling chemicals.

*Respiratory protection*
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: noctanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

No dangerous decomposition products known

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity: no data available
Primary irritant effect on the skin: not determined
Primary irritant effect on the eye: not determined
Sensitization: No sensitizing effects known.
Signs and Symptoms of Exposure:
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The product is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
General advice: The product has to be disposed of as laboratory chemical in accordance with local regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

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 users
no data available

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further 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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Evrogen shall not be held liable for any damage resulting from handling or from contact with the above product.
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product name: Control template
Product number: N/A
Kit name: Duplex-specific nuclease
Kit number: EA003
Brand: Evrogen

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, FOR RESEARCH USE ONLY

1.3 Details of the supplier of the safety data sheet
Company: Evrogen JSC
Miklukho-Maklaya str, 16/10,
117997, Moscow, Russia
Telephone +7(495)988-4084
Fax +7(495)988-4085
Email address: evrogen@evrogen.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Not a dangerous substance according to GHS.
This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

2.2 Label elements
This product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards none

3. COMPOSITION/INFORMATION OF INGREDIENTS

3.1 Chemical characterization
Description: Solution, consisting of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No:</th>
<th>Concentration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>plasmid DNA</td>
<td>no data available</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been
4.3 **Indication of immediate medical attention and special treatment needed**
no data available

5. **FIRE-FIGHTING MEASURES**

5.1 **Extinguishing media**
**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 **Special hazards arising from the substance or mixture**
Nature of decomposition products not known.

5.3 **Precautions for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.

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 vapors, 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 suitable, closed containers for disposal.

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

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20 °C

7.3 **Specific end uses**
No further relevant information available

8. **EXPOSURE CONTROLS/PERSOAL PROTECTION**

8.1 **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.

8.2 **Exposure controls**
**Personal protective equipment:**
**General protective and hygienic measures**
The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<table>
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<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: Liquid</td>
</tr>
<tr>
<td></td>
<td>Colour: Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
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<td>Flash point</td>
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<td>Evaporation rate</td>
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<td>Water solubility</td>
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<tr>
<td>Partition coefficient: noctanol/water</td>
<td>no data available</td>
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<tr>
<td>Autoignition temperature</td>
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<td>Decomposition temperature</td>
<td>no data available</td>
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<tr>
<td>Viscosity</td>
<td>no data available</td>
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<td>Explosive properties</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>

#### 9.2 Other safety information

no data available

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

no data available

#### 10.2 Chemical stability

no data available

#### 10.3 Possibility of hazardous reactions

No dangerous reactions known

#### 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

no data available

#### 10.6 Hazardous decomposition products

No dangerous decomposition products known

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Acute toxicity:** no data available
Primary irritant effect on the skin: not determined
Primary irritant effect on the eye: not determined
Sensitization: No sensitizing effects known.

Signs and Symptoms of Exposure:
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Additional toxicological information:
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The product is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
General advice: The product has to be disposed of as laboratory chemical in accordance with local regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

14.1 UN-Number
ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name
ADR/RID: - IMDG: - Not dangerous goods
ADR/RID: - IMDG: - Not dangerous goods
ADR/RID: - IMDG: - 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 users
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further information
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