SAFETY DATA SHEET

xGen™ Prism Ligation 2 Enzyme A


SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: xGen™ Prism Ligation 2 Enzyme A
Product number: 10005930

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: For research and development purposes only.
Uses advised against: No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet
Manufacturer: Integrated DNA Technologies
1710 Commercial Park
Coralville, Iowa, 52241

41 Science Park Road
#01-28 The Gemini
Singapore Science Park II
Singapore 117610
Republic of Singapore

Interleuvenlaan 12A
B-3001 Leuven
Belgium

6828 Nancy Ridge Drive
San Diego, California 92121
USA
custcare@idtdna.com

1.4. Emergency telephone number
Emergency telephone: ChemTrec 800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indeling (classification)

2.2. Label elements

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances
Product name: xGen™ Prism Ligation 2 Enzyme A
Composition comments: The exact percentage is withheld as a trade secret. No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

SECTION 4: First aid measures
4.1. Description of first aid measures

**General information**
If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

**Inhalation**
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

**Ingestion**
Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

**Skin contact**
Rinse with water.

**Eye contact**
Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

**Protection of first aiders**
First aid personnel should wear appropriate protective equipment during any rescue.

4.2. Most important symptoms and effects, both acute and delayed

**General information**
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation**
No specific symptoms known.

**Ingestion**
No specific symptoms known.

**Skin contact**
No specific symptoms known.

**Eye contact**
No specific symptoms known. May be slightly irritating to eyes.

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

**Notes for the doctor**
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

**Suitable extinguishing media**
The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

**Specific hazards**
None known.

**Hazardous combustion products**
Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

5.3. Advice for firefighters

**Protective actions during firefighting**
Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak.

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.

6.2. Environmental precautions

**Environmental precautions**
Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**
Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions: Read and follow manufacturer’s recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs.
Advice on general occupational hygiene: Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions: Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
Storage class: Unspecified storage.

7.3. Specific end use(s)
Specific end use(s): The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters
Ingredient comments: This product, as supplied, does not contain any hazardous materials with occupational exposure limits

8.2. Exposure controls
Protective equipment:
Appropriate engineering controls: Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection: Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection: No specific hand protection recommended.
Other skin and body protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures: Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection: Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls: Keep container tightly sealed when not in use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance: Liquid.
Colour: Colourless.
Odour: Mild.
Odour threshold: Not available.
P pH: Not available.
Melting point: Not available.
xGen™ Prism Ligation 2 Enzyme A

Initial boiling point and range 
Not available.

Flash point 
No information available.

Evaporation rate 
Not available.

Evaporation factor 
Not available.

Flammability (solid, gas) 
Not available.

Upper/lower flammability or explosive limits 
Not available.

Other flammability 
Not available.

Vapour pressure 
Not available.

Vapour density 
Not available.

Relative density 
Not available.

Bulk density 
Not available.

Solubility(ies) 
Not available.

Partition coefficient 
Not available.

Auto-ignition temperature 
Not available.

Decomposition Temperature 
Not available.

Viscosity 
Not available.

Explosive properties 
Not considered to be explosive.

Explosive under the influence of a flame 
Not available.

Oxidising properties 
Not available.

9.2. Other information 
None.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity 
See the other subsections of this section for further details.

10.2. Chemical stability
Stability 
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions 
No potentially hazardous reactions known.

10.4. Conditions to avoid
Conditions to avoid 
There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials
Materials to avoid 
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Hazardous decomposition products 
Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
xGen™ Prism Ligation 2 Enzyme A

Notes (oral LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - dermal Based on available data the classification criteria are not met.
Notes (dermal LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - inhalation Based on available data the classification criteria are not met.
Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.
Skin corrosion/irritation Based on available data the classification criteria are not met.
Animal data Based on available data the classification criteria are not met.
Serious eye damage/irritation Based on available data the classification criteria are not met.
Respiratory sensitisation Based on available data the classification criteria are not met.
Skin sensitisation Based on available data the classification criteria are not met.
Germ cell mutagenicity Based on available data the classification criteria are not met.
Genotoxicity - in vitro Based on available data the classification criteria are not met.
Carcinogenicity Based on available data the classification criteria are not met.
IARC carcinogenicity None of the ingredients are listed or exempt.
Reproductive toxicity Based on available data the classification criteria are not met.
Reproductive toxicity - fertility Based on available data the classification criteria are not met.
Reproductive toxicity - development Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure
STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated exposure
STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard Based on available data the classification criteria are not met.
General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation No specific symptoms known.
Ingestion No specific symptoms known.
Skin contact No specific symptoms known.
Eye contact No specific symptoms known.
Target organs No specific target organs known.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity Based on available data the classification criteria are not met.
12.2. Persistence and degradability
Persistence and degradability The degradability of the product is not known.
12.3. Bioaccumulative potential
Bioaccumulative potential  No data available on bioaccumulation.
Partition coefficient  Not available.
12.4. Mobility in soil
Mobility  No data available.
12.5. Results of PBT and vPvB assessment
12.6. Other adverse effects
Other adverse effects  None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information  The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods  Do not empty into drains.

SECTION 14: Transport information

General  Not regulated.
14.1. UN number
UN No. (IATA)  Not Regulated
14.2. UN proper shipping name
Proper Shipping Name (IATA)  Not Regulated
14.3. Transport hazard class(es)
IATA Hazard Class  Not Regulated
14.4. Packing group
IATA Packing Group  Not Regulated
14.5. Environmental hazards
14.6. Special precautions for user
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

Inventories
EU - EINECS/ELINCS
None of the ingredients are listed or exempt.
### Abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road.</td>
</tr>
<tr>
<td>ADN</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</td>
</tr>
<tr>
<td>RID</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Rail.</td>
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<tr>
<td>IATA</td>
<td>International Air Transport Association.</td>
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<tr>
<td>ICAO</td>
<td>Technical Instructions for the Safe Transport of Dangerous Goods by Air.</td>
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<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods.</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service.</td>
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<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate.</td>
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<tr>
<td>LC₅₀</td>
<td>Lethal Concentration to 50% of a test population.</td>
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<tr>
<td>LD₅₀</td>
<td>Lethal Dose to 50% of a test population (Median Lethal Dose).</td>
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<tr>
<td>EC₅₀</td>
<td>50% of maximal Effective Concentration.</td>
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<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic substance.</td>
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<tr>
<td>vPvB</td>
<td>Very Persistent and Very Bioaccumulative.</td>
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### Training advice

Only trained personnel should use this material.

### SDS number

4707