## Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier: TargetEx dUTPase (from Pfu) 1 mg/mL
1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: protein solution, for research use only.

1.3. Details of the supplier of the safety data sheet:

**Manufacturer's Details:**
TargetEx Kft.
2120 Dunakeszi, Madách Imre utca 31/2.
Tel.: +36 30 252 0971
E-mail: info@targetex.com

**Trader idntification:**
TargetEx Kft.
2120 Dunakeszi, Madách Imre utca 31/2.
Tel.: +36 30 252 0971
E-mail: info@targetex.com

**Responsible for SDS:**
TargetEx Kft.
2120 Dunakeszi, Madách Imre utca 31/2.
Tel.: +36 30 252 0971
E-mail: info@targetex.com

1.4. Emergency telephone number:

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián st. 2-6.)
Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).
+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

## Section 2: Hazards identification

2.1. Classification of the substance or mixture
Hazard Class and Category: This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2 Label elements
Trade name: TargetEx dUTPase (from Pfu) 1 mg/mL
Hazardous components: -
GHS Pictogram: not required
Signal word: not required
Hazard statement: This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
Supplemental hazard information: -
Precautionary statements – General: -

Precautionary statements – Prevention:
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection/face protection.
Precautionary statements – Response: -
Precautionary statements – Storage: - 20 °C
Precautionary statements – Disposal: P501 Dispose of contents/container in accordance with national regulation.
Other liabilities for labelling: -
Tactile warning of danger and child-resistant fastening: not required.
Transport classification: see section 14.

2.3. Other hazards:
The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006 at concentrations 0,1% or higher.
The product does not contains substance with endocrine disrupting properies

## Section 3: Composition/information on ingredients

3.2. Mixtures
Chemical description: Mixture of substances with water (emulsion) Component(s) / Hazardous component(s):

| Name | EC number | CAS number | Hazard classes and cat. | Hazard statements | Conc. %(m/m) |
|---|---|---|---|---|---|
| Glycerol REACH Registr. Nr.: 01-2119471987-18 | 200-289-5 | 56-81-5 | - | - | 30-60 |

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

## Section 4: First aid measures

### 4.1. Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.
Inhalation: Remove the affected person to fresh air. Call a physician if you feel unwell.
Skin contact: Take off contaminated clothing. Wash skin with large amounts of water, use soap. In case of complaints, get medical attention.
Eye contact: Flush eyes with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Ingestion: Rinse mouth. DO NOT induce vomiting. Call a physician if you feel unwell.
Protection of first-aid person: No data available.

4.2. Most important symptoms and effects, both acute and delayed Irritant effects may occur.
4.3. Indication of any immediate medical attention and special treatment needed. Treat symptomatically.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Foam, carbon dioxide, dry chemical powder, water spray.
Unsuitable extinguishing media: No data.

### 5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: On burning, carbon dioxide, carbon monoxide, various hydrocarbons, toxic pyrolysis products can be formed.

5.3. Advice for fire-fighters Special protective equipment: According to the existing fire-fighting regulations. Respiratory protection.

Further information: Collect contaminated fire-fighting water separately. It must not enter the sewage system. Contaminated extinguishing water must be disposed of in accordance with official regulations.

## Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:
Personal precautions: see Section 8.
Adequate ventilation must be provided.
Keep away from sources of ignition. –No smoking.
Danger of slipping on leaked out/spilled product.
Avoid contact with skin and eyes.

6.2. Environmental precautions:
Confine spills to prevent material from entering sewers, watercourses, drains and into soil.
Notify relevant authority.

6.3. Methods and material for containment and cleaning up
On soil: All kind of ignition sources should be removed. Recover free liquid by pumping. Contain the rest or small quantities with sand, vermiculite, or other suitable absorbents. Should be treated as hazardous waste.
On water: Notify local authorities according to regulations.

6.4. Reference to other sections
Personal precautions: see section 8.
Waste treatment methods: see section 13

## Section 7: Handling and storage

7.1. Precautions for safe handling
Keep general measures applied for normal operations with chemical products.
Adequate ventilation or local exhaust.
Keep material away from and open flame. No smoking.
Avoid contact with skin and eyes. Avoid prolonged breathing of vapours.
Take off contaminated clothing and wash it before reuse.
When using do not eat, drink or smoke. Avoid splashing the product.
Handling temperature: no data.

7.2. Conditions for safe storage, including any incompatibilities
Storage facilities must comply with regulations for storing of chemicals.
Store in dry, cool, well-ventilated place in original, closed containers.
Keep away from radiant heat, strong oxidizing agents, reducing agents, acids.
Storage temperature: -20°C

7.3. Specific end use(s): Protein solution.

## Section 8: Exposure controls / personal protection

8.1. Control parameters:
No components to be listed

8.2. Exposure controls
Engineering control measures: Adequate ventilation.
Personal protection:
(a) Eye/face protection Protective goggles (EN 166).
(b) Skin protection
(i) Hand protection Chemical resistant gloves (EN 374). Note: Manufacturer's directions for use and the conditions of application should be observed.
(ii) Other Work clothes.
(c) Respiratory protection Breathing apparatus is not required in case of adequate ventilation. In case of exceeded exposure-limits respiratory protection with an organic vapor filter is recommended.
(d) Thermal hazards No data.

Other special: Ensure that eyewash stations and safety showers are close to the workstation location.
Environmental exposure controls: Do not discharge into drains/surface waters/groundwater.

## Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
a) Physical state: liquid
b) Colour: colorless
c) Odour: odourless
d) Melting point/freezing point: not available
e) Boiling point or initial boiling point and boiling range: not available
f) Flammability: not flammable
g) Lower and upper explosion limit: Formation of explosive vapor/air mixture is possible: 2.7 vol% / 19 vol.% (glycerol)
h) Flash point: not available
i) Auto-ignition temperature: not available
j) Decomposition temperature: not available
k) pH: approx. 8.2
l) Kinematic viscosity at: 40°C: not available
at: 100°C: not available

m) Solubility in water: completely soluble
in other solvents: not available
n) Partition coefficient n-octanol/water (log value): not available
o) Vapour pressure: not available
p) Density and/or relative density: 1.13 g/cm3
q) Relative vapour density: not available
r) Particle characteristics: not available
9.2. Other information Not available data.

## Section 10: Stability and reactivity

10.1. Reactivity: Dangerous reactivity not known.
10.2. Chemical stability: No decomposition if stored and handled properly.
10.3. Possibility of hazardous reactions: Not known.
10.4. Conditions to avoid: Storage at temperatures higher than the recommended values.
10.5. Incompatible materials: Strong oxidizing agents, reducing agents, acids.
10.6. Hazardous decomposition products: No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5.

## Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity: Based on available data, the classification criteria are not met.

Components:
Glycerol (CAS: 56-81-5): Oral: LD50 (rat, female) 27200 mg/kg
Dermal: LD50 (guinea pig) 56750 mg/kg
Inhalation: LC50 (rat) >5840 mg/L

Skin corrosion/irritation: 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 or 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.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
11.2. Information on other hazards: -

## SECTION 12: Ecological information

12.1. Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment

12.2. Persistence and degradability No data available.
Biodegradability: No data available.

12.3. Bioaccumulative potential No data available.

12.4. Mobility in soil No data available.
Mobility in water: It is completely miscible with water.

12.5. Results of PBT and vPvB assessment Does not contain PBT and vPvB substances at concentrations 0,1% or higher.

12.6. Endocrine disrupting properties: The product does not contain substance with endocrine disrupting properties

12.7. Other adverse effects Not available.

## SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product disposal: Wastes of the product or used oil should be treated as hazardous waste.
Waste Identification Code: 16 05 06*
Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
Waste Identification Code: 20 01 09*
Detergents containing dangerous substances
Recommended waste treatment method: no information

Packaging disposal:
Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.
Waste Identification Code: 15 01 10*
Packaging containing residues of or contaminated by dangerous substances.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.
Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

## SECTION 14: Transport information

Road/ Railway ADR/RID: Not classified
14.1. UN number or ID number: Not classified.
14.2. UN proper shipping name: Not classified.
14.3. Transport hazard class(es): Not classified.
14.4. Packing group: Not classified.
14.5. Environmental hazards: Not classified. 14.6.
Special precautions for user: Not classified.
14.7. Maritime transport in bulk according to IMO instruments Not applicable

Waterways: Inland waterways/ Sea transport ADN/IMDG: Not apply to the product.
Air transport: ICAO / IATA: Not apply to the product.

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006
(mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.
Seveso category: not classified.

15.2. Chemical safety assessment. not available.

## SECTION 16 : Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract. The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

The full text of each relevant H- phrase and Hazard classes and cat. in Section 3.:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH430 May cause endocrine disruption in the environment
Acute Tox. 4 Acute toxicity Category 4
Skin Irrit. 2 Skin corrosion/irritation Category 2
Eye Dam. 1 Serious eye damage/eye irritation Category 1
Aquatic Acute 1 Hazardous to the aquatic environment, Acute Category 1
Aquatic Chronic 1 Hazardous to the aquatic environment, Chronic Category 1
ED ENV 1 Endocrine disruption for the environment Category 1

Legend:
ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE Acute Toxicity Estimate
BCF Bioconcentration Factor
BOD Biological Oxygen Demand
Bw Body Weight
C&L Classification and Labelling
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (1272/2008/EC)
CMR Carcinogenic, Mutagenic or toxic to Reproduction
COD Chemical Oxygen Demand
CSA Chemical Safety Assessment
CSR Chemical Safety Report
DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
ECHA European Chemicals Agency
Ecx Effective Concentration x%
ErC50 EC50 in terms of reduction of growth rate
Edx Effective Dose x%
EC European Community
EC number European Community number
ELINCS European List of Notified Chemical Substances
ES Exposure Scenario

IARC International Agency for Research on Cancer
IATA International Air Transport Association

IMDG International Maritime Dangerous Goods
LCx Lethal Concentration x%
LDx Lethal Dose x%
LOAEC Lowest Observed Adverse Effect Concentration
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
NOEC No observed effect concentration
NOEL No observed effect level
NLP No-Longer Polymer
NOAEL No Observed Adverse Effect Level
OECD Organisation for Economic Cooperation and Development
PBT Persistent Bioaccumulative and Toxic
PNEC Predicted No-Effect Concentration ppm parts/million
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC Substance of Very High Concern
UVCB substance of unknown or variable composition, complex reaction products or biological materials
VOC Volatile organic compounds vPvB Very Persistent and very Bio-accumulative

Revision Indicators:

| Section | Subject of change | Date | Version |
|---|---|---|---|
| | | | |