

Material Safety Data Sheet

SECTION 1. Identification

Product Identification: Heat-labile Uracil-DNA Glycosylase

Catalogue Number: B-2021

Application of the substance / mixture : Laboratory chemicals

General Information Telephone: 82-1599-4003

General Information FAX: 82-042-934-3485

Emergency Telephone: 82-1599-4003

Contractor's Name: Genet Bio Corporation

Contractor's Address: B-412, Migun Techno World II, Techno2-ro, Yuseong-gu, Daejeon, South of

Korea

Contractor's Telephone: 82-0502-523-3485

SECTION 2. Hazard identification

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Primary routes of entry: Skin or eye contact from splashes.

Ingestion: Low hazard.

Skin contact: Non-irritating.

Eye contact: May cause mild irritation.

Evidence for reproductive toxicity, carcinogenicity and mutagenicity: No data available.

Label elements including precautionary statements

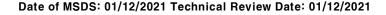
No labelling obligation.

SECTION 3. Composition/information on ingredients

Components in Water:

Ingredients	CAS No.	Concentration	Classification according to Regulation (EC) No.
TRIS(HYDROXYMETHYL)AMINOMETHANE HYDROCHLORIDE	1185-53-1	~1.00 %	214-684-5
Glycerol	56-81-5	~50.0%	200-289-5

Other components are not dangerous or their concentrations do not exceed the limits specified in the EU





directive 1999/45/EC

Chip R & S Phrases

For the mixture/preparation:

R:36/37/38 Irritation to eyes, respiratory system and skin.

S:26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S:36/37 Wear suitable protective clothing and gloves.

SECTION 4. First-aid measures

In case of eye contact

Flush with water for 15 minutes. Seek medical advice if irritation persists.

In case of skin contact

Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.

If inhaled

Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen.

If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.

If ingestion

Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

SECTION 5. Fire-fighting measures

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self-contained breathing apparatus.

For small fires only: use carbon dioxide, dry powder or foam.

Emits toxic fumes under fire conditions.

Flash Point = No data available.

SECTION 6. Accidental release measures

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator.

Collect in a manner that does not create dust and place in a suitable waste container.

Avoid contact of material with skin or eyes.



Use adequate ventilation.

SECTION 7. Handling and storage

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator.

Avoid contact of material with skin or eyes.

Store ambient away from incompatible materials.

SECTION 8. Exposure controls/personal protection

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator.

A qualified industrial hygienist should evaluate the need for respiratory protection.

Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard.

Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists.

Access to a safety shower and eye-wash.

SECTION 9. Physical and chemical properties

Appearance: Liquid and clean

pH: Not determinded.

Flash point: Not determinded.

Autoignition temperature: Not determinded.

Water solubility: Fully miscible.

Density: 1 g/cm³ at 20 ℃

Viscosity: 0.952 mPas (dynamic at 20 ℃)

 $\begin{tabular}{ll} Melting range/point : 0 \ ^{\circ} C \\ \end{tabular}$

Boiling range/point: 100 ℃

Lower explosion limit: Not determinded.

Upper explosion limit: Not determinded.



SECTION 10. Stability and reactivity

Product is stable. Hazardous decomposition products include oxides of carbon, boron and nitrogen. Incompatible with strong oxidizing agents, acetic anhydride, alkalis, carbonates, hydroxides and potassium. Hazardous polymerization will not occur.

SECTION 11. Toxicological information

EYES: Contact causes irritation, redness, swelling and pain. May cause chemical conjunctivitis.

SKIN: Contact causes irritation. Not significantly absorbed through the intact skin. Readily absorbed through damaged or burned skin. Symptoms of skin absorption parallel inhalation and ingestion.

INHALATION: Causes irritation to mucous membranes and upper respiratory tract. May be absorbed through the mucous membranes, and depending on the amount of exposure could result in the development of nausea, vomiting, diarrhea, drowsiness, rash, headache, fall in body temperature, low blood pressure, renal injury, cyanosis and coma.

INGESTION: Symptoms parallel absorption via inhalation. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause gastric disturbances and electrolyte imbalance. May cause CNS effects including excitement or depression, lethargy, headache, coma and seizures. May cause liver and kidney damage.

SECTION 12. Ecological information

Data not yet available

SECTION 13. Disposal considerations

Dispose of material in accordance with applicable local, state, and federal regulations.

SECTION 14. Transport information

DOT / TDG / MEX / ICAO (air) / IATA / IMDG / RID / ADR / AND: No applicable information.

Tel.: +82-0502-523-3484 Fax.: +82-0502-523-3485 E-mail: info@genetbio.co.kr URL: www.genetbio.com



SECTION 15. Regulatory information

Korea regulatory information: None of the ingredients listed.

US CLASSIFICATION AND LABEL TEXT

US Statements: Caution: Avoid contact and inhalation.

UNITED STATES REGULATORY INFORMATION

SARA Listed: No

CANADA RUGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the

CPR, and MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Disclaimer: For R&D use only. Not for drug, household or other uses.

Warranty: the above information is believed to be correct but does not purport to be all inclusive and

shall be used only as a guide

SECTION 16. Other information

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.