

DNA-12000 KIT ASSY (P/N 292-36600-91, 292-36600-10, 292-36600-30) includes
DNA-12000 Separation Buffer and DNA-12000 Marker solution.

Safety Data Sheet

Section 1: Identification of the substance or mixture and of the supplier

Product name: DNA-12000 Marker solution
 Name of supplier: Shimadzu Corporation
 Address: 1 Nishinokyo-Kuwabaracho, Nakagyo-ku, Kyoto 604-8511, Japan
 Section in charge: Clinical & Infectious Disease Testing Business Unit, Diagnostics Management Department
 Telephone: +81-75-823-1351
 FAX: +81-75-823-1364
 Use of the product: This product is for analytical research use only.
 Not applicable for clinical and/or diagnostic purposes.
 Restricted to professional users.

Section 2: Hazard identification

GHS classification: Reproductive toxicity Category 1B
 GHS label elements:



Signal word: DANGER

Hazard statements: H360: May damage fertility or the unborn child.
 Prevention: P203: Obtain, read and follow all safety instructions before use.
 P280: Wear protective gloves/ protective clothing/ eye protection.
 Response: P308+P316: If exposed or concerned: Get emergency medical help immediately.
 Storage: P405: Store locked up.
 Disposal: P501: Dispose of contents/ container according to all federal, state and local environmental regulations.

Section 3: Composition/information on ingredients

Substance/ mixture: Mixture
 General description: Buffer solution including boric acid and tris(hydroxymethyl)aminomethane.
 tris(hydroxymethyl)aminomethane (CAS No. 77-86-1) < 1.0 %
 boric acid (CAS No. 10043-35-3) < 1.0 %
 Other non-hazardous components < 0.1 %
 Water (CAS No. 7732-18-5) Balance to 100 %

* The exact concentration of composition has been withheld as confidential business information.

Section 4: First-aid measures

Inhalation: Remove to uncontaminated area and supply fresh air. Promptly consult doctor, if needed.
 Skin contact: Take off contaminated clothing and wash skin with plenty of water.
 Eye contact: Flush eyes with plenty of water for at least 15 minutes and obtain medical attention.
 Ingestion: Drink plenty of water to induce vomiting and obtain medical attention.

Section 5: Fire-fighting measures

Suitable extinguishing media: Use water mist, foam, powder, carbon dioxide, dry sand.
 Specific hazards arising from fire-fighting: Gases will form upon combustion of carbon monoxide, nitrogen oxides and boric oxides.
 Special fire-fighting measures: In case of fire in the surrounding area, promptly move the container to a safe place.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate protective equipment.
 Environmental precautions: Absorb as much of the material as possible with paper towel or sand.
 Methods and materials for containment and cleaning up: Prevent leakage and soak up completely with absorbent material.

Section 7: Handling and storage

Handling:	Wear personal protective equipment to prevent inhalation and the product from conducting eyes or skin.
Storage:	Keep tightly closed in dark cool and well-ventilated place.

Section 8: Exposure controls/personal protection

Exposure limits:	No occupational exposure limit values and/or biological limit values are established.
Permitted concentration:	Japan Society for Occupational Health: Not established ACGIH: (Boric Acid) TWA 2mg/m ³ (I), STEL 6mg/m ³ (I)
Equipment measures:	Eyewash equipment
Respiratory protection:	Not required
Hand protection:	Wear impervious glove.
Eye protection:	Wear tightly sealed goggles.
Skin and body protection:	Wear laboratory coat.

Section 9: Physical and chemical properties

Physical state, color:	Colorless, transparent liquid
Odor	Odorless
Melting/ Freezing point:	No data available
Boiling point/ boiling range:	No data available
Flammability:	Not applicable
Lower/Upper explosion limit:	Not classified as explosive.
Flash point:	No data available
Auto-ignition temperature:	The product does not combust spontaneously.
Decomposition temperature:	No data available
pH:	8.2 at 20°C
Kinematic viscosity:	No data available
Solubility:	Readily soluble
Vapor pressure:	No data available
Density and/or relative density:	No data available
Relative vapor density:	No data available
Particle characteristics:	Not applicable

Section 10: Stability and reactivity

Reactivity:	No information available
Chemical stability:	Stable under standard ambient conditions.
Possibility of hazardous reactions:	Hazardous reaction has not been reported.
Conditions to avoid:	Avoid physical stress e.g., direct sunlight, excess heat, or electrostatic discharge.
Incompatible materials:	No information available
Hazardous decomposition products:	No information available

Section 11: Toxicological information

No data available for the mixture.

Additional toxicological information on boric acid:

Acute toxicity:	Not classified (Oral LD50 value of 2,660-5,140mg/kg, Rat)
Skin corrosion/irritation:	Not classified (At 24 and 72 hours, moderate irritation was noted.)
Serious eye damage/eye irritation:	Not classified (Unknown toxic components in the mixture: ≥0.1%)
Reproductive or skin sensitization:	Not classified due to insufficient data.
Germ cell mutagenicity:	Not classified due to insufficient data.
Carcinogenicity:	Not classified due to insufficient data.
Reproductive toxicity:	Category 1B (Adverse effects on reproduction of parental animals and development of pups at doses producing no parental toxicity.
Specific target organ toxicity (single exposure):	Not classified due to insufficient data.
Specific target organ toxicity (repeated exposure):	Not classified due to insufficient data.
Aspiration hazard:	Not classified (No kinematic viscosity data available.)

Section 12: Ecological information

No data available for the mixture.

Additional toxicological information on boric acid:

Toxicity	Hazardous to the aquatic environment (acute): Not applicable for classification. Hazardous to the aquatic environment (chronic): Not applicable for classification.
Persistence and degradability:	No information available
Bioaccumulative potential:	No information available
Mobility in soil:	No information available
Other adverse effects:	Ozone depletion potential, photochemical ozone creation potential and/or global warming potential: Not classified (Not listed in Annexes of Montreal Protocol.)

Section 13: Disposal considerations

Residual waste:	Dispose of contents/ container according to all federal, state, and local environmental regulations.
Contaminated container:	After removing the contents, dispose of contents/ container according to all federal, state, and local environmental regulations.

Section 14: Transport information

US DOT, IMDG (sea), ADR/RID (land), ICAO/IATA (air): No classification assigned.

Prior to transport, make sure no leakage is observed from the bottle and stow a cargo without dropping and turning over.

Section 15: Regulatory information

U.S. TSCA Inventory: Boric acid

The composition/ information of ingredients is disclosed according to GHS. Comply with all countries, national and local regulation.

Section 16: Other information

References

- 1) National Institute of Technology and Evaluation: GHS; http://www.safe.nite.go.jp/ghs/ghs_index.html
- 2) National Institute of Technology and Evaluation: CHRIP; http://www.nite.go.jp/chem/chrip/chrip_search/systemTop
- 3) Ministry of Economy, Trade and Industry: GHS Mixture Classification System ver. 6.0 (According to GHS, sixth revised edition, 2015)

Revision

Date of latest revision: May 14, 2026

Reason for revision: GHS ninth revised edition (JIS Z7253: 2025) compliant

Changes from the previous version: None (Due to other language SDS revisions)

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