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Last revision at: 12.02.2020



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Next revision at: 12.02.2021

10x Running Buffer Tris-Borate-EDTA

Safety Data Sheet

Page 1 of 6

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Name: 10x Running Buffer Tris-Borate-EDTA
Cat. No.: ID1531
EC Substance name: not available
CAS Number: not available
EC Number: not available
REACH Reference Number: not available

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

Identified uses: Mixture of chemicals for industrial and public laboratory analysis
Uses advised against: Unknown.

1.3 Details of the supplier of the safety data sheet

Supplier: NIPPON GENETICS EUROPE GmbH
Mariaweilerstraße 28-30
D- 52349 Düren, Germany
Phone.: +49 (0) 2421 / 554960
Fax: +49 (0) 2421 / 5549611
E-Mail: info@nippongenetics.de
Internet: www.nippongenetics.eu

Information on further details at: Technical Support
Phone: +49 (0) 2421 / 554960
Fax: +49 (0) 2421 / 5549611
E-Mail: sdb@nippongenetics.de

1.4 Emergency telephone no:

Emergency information: Phone: +49 (0) 2421 / 554960
Within the business hours: Monday to Friday, 8 a.m. to 5 p.m.

2. Hazards identification

2.1 GHS-Classification

Signal Word: Caution!
Appearance: transparent liquid
Hazard Statements May cause kidney damage. May cause central nervous system effects. May cause reproductive effects based upon animal studies. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

2.2 Principle Routes of Exposure Potential Health Effects

Eyes: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: May be harmful by inhalation. May cause irritation of digestive tract. May cause kidney damage. May cause central nervous system effects.
Inhalation: May cause respiratory tract irritation.
Chronic: May cause borism characterized by dry skin, skin eruptions and gastric disturbances.

2.3 Specific effects

Carcinogenic effects: None.
Mutagenic effects: None.
Reproductive toxicity: None.
Sensitization: None.

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10x Running Buffer Tris-Borate-EDTA

Safety Data Sheet

Page 2 of 6

Target Organ Effects: No known effects under normal use conditions.

3. Composition / information on ingredients:

3.1 Substances:


Chemical Name	CAS-No	EINECS-No	Weight %
Boric acid	10043-35-3	233-139-2	32.5
Tris	77-86-1	201-064-4	64
EDTA	60-00-4	200-449-4	3.5
Water	7732-18-5	231-791-2	up to 100

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First aid measures

4.1 Description of the first aid measures:

4.1.1 General information:

 If complaints persist consult a physician. Remove contaminated cloths and shoes, thoroughly clean before re-use. If complaints and symptoms occur seek medical advice.


4.1.2 Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

4.1.3 Skin contact:

Rinse cautiously with water for several minutes. Get medical aid if irritation develops or persists.

4.1.4 Eye contact:

 Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

4.1.5 Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

4.1.6 Notes to physician:

Treat symptomatically.

5. Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media:

The product is not combustible, adapt the measures to the environment: water spray, carbon dioxide, extinguishing foam and dry extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

Not known.

5.3 Special protective equipment for firefighters:

Standard procedure for chemical fires.

10x Running Buffer Tris-Borate-EDTA

Safety Data Sheet

Page 3 of 6

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid the contact with skin, eyes and cloth, wear suitable protection equipment.

6.2 Environmental precautions:

No special environmental precautions required. See Section 12 for more information.

6.3 Methods and material for containment and cleaning up:

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. Handling and storage

7.1 Precautions for safe handling:

Always wear recommended personal protective equipment. No special handling advices are necessary.

7.2 Storage

Keep in a dry, cool and well-ventilated place. Store in tightly closed container.

8. Exposure controls / personal protection

8.1 Engineering measures

Ensure adequate ventilation, especially in confined areas.

8.2 Personal protective equipment:



Hand protection:

Impervious gloves.



Eye protection:

Eye protection goggles with side protection (EN 166).



Skin and body protection

Lightweight protective clothing.



General protection and hygiene measure:

Do not eat, drink or smoke during working hours. Keep away from food and drink. Avoid contact with eyes and skin. Remove contaminated and soaked clothing immediately. Wash hands before breaks and after work.

8.3 Limitation of the environmental exposure:

No special environmental precautions required.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

9.1.1 Appearance:

Physical status:	liquid
Color:	transparent
Odor:	odorless
pH:	8-9

9.1.2 Fundamental data relevant for security:

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10x Running Buffer Tris-Borate-EDTA

Safety Data Sheet

Page 4 of 6

Parameter	Value
Boiling point / boiling range °C	No data available
Melting point / melting range °C	No data available
flash point: °C	No data available
Autoignition Temperature °C	No data available
Oxidizing properties	No data available
Water solubility	No data available

10. Stability and Reactivity

10.1 Stability:

Stable under the intended use and storage conditions. Decarboxylates above 150°C.

10.2 Materials to avoid:

EDTA is incompatible with: strong oxidizing agents, strong bases, copper, copper alloys, aluminum. Tris is incompatible with strong oxidizing agents and strong acids. Boric acid is incompatible with acetic anhydride and potassium. Forms borate salts with basic components.

10.3 Hazardous decomposition:

Carbon monoxide, carbon dioxide, nitric oxide (NO) and ammonia (NH₃) fumes.

10.4 Product polymerization:

Hazardous polymerization does not occur.

11. Toxicological information

11.1 Information on toxicological effects:

RTECS#:

CAS# 60-00-4: AH4025000

CAS# 77-86-1: TY2900000

CAS# 10043-35-3: ED4550000

LD50/LC50:

CAS# 60-00-4: Oral, mouse: LD50 = 30 mg/kg.

CAS# 77-86-1: Oral, rat: LD50 = 5900 mg/kg.

CAS# 10043-35-3: Oral, mouse: LD50 = 3450 mg/kg; Oral, rat: LD50 = 2660 mg/kg.

Carcinogenicity:

Ethylenediamine tetraacetic acid - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Tris (hydroxymethyl) aminomethane - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Boric acid - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: EDTA: Embryo or Fetus, Stunted fetus, oral-rat TDLo=7632mg/kg. Specific Developmental Abnormalities, Cardiovascular, Craniofacial, Musculoskeletal, Respiratory, and Urogenital, oral-rat TDLo=7632mg/kg. Boric Acid: Decreased fetal weight, oral rat 13.3 mg/kg/1D.

Reproductive Effects:

EDTA: Fertility, Post-implantation mortality, oral-rat TDLo=7632mg/kg.

Boric Acid: Maternal effects on ovaries and fallopian tubes, oral rat TDLo=45 g/kg 90 days. Paternal effects on spermatogenesis, oral rat TDLo=52 mg/kg. effects on testes, sperm duct or epididymis, oral rat TDLo=45 g/kg 90 days.

Neurotoxicity: No information available.

Mutagenicity: EDTA: Cytogenetic Analysis, intraperitoneal-mouse 50mmol/L.

DNA Inhibition: hamster fibroblast 500ug/L, rabbit kidney 250umol/L.

Other Studies: None.

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10x Running Buffer Tris-Borate-EDTA

Safety Data Sheet

Page 5 of 6

12. Ecological information

- | | | |
|------|-------------------------|---------------------------------------------------------------------------|
| 12.1 | Eco-toxicity: | The environmental impact of this product has not been fully investigated. |
| 12.2 | Mobility: | No information available. |
| 12.3 | Biodegradation: | Inherently biodegradable. |
| 12.4 | Bioaccumulation: | Material does not bioaccumulate. |

13. Disposal considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

IATA

- | | |
|-----------------------------|-----------------------------------------------------------------|
| Proper shipping name | No dangerous good in sense of these transport regulations. |
| Hazard Class | This substance is considered to be non-hazardous for transport. |
| Subsidiary class | None |
| Packing group | None |
| UN-No | None |

15. Regulatory information

15.1 US Federal Regulations

TSCA

CAS# 60-00-4 is listed on the TSCA inventory.

CAS# 77-86-1 is listed on the TSCA inventory.

CAS# 10043-35-3 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 60-00-4: final RQ = 5000 pounds (2270 kg)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 77-86-1: acute.

CAS # 10043-35-3: acute.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 60-00-4 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

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10x Running Buffer Tris-Borate-EDTA
Safety Data Sheet
Page 6 of 6

Ethylenediamine tetraacetic acid can be found on the following state right to know lists: California, New Jersey, Pennsylvania and Massachusetts. Tris (hydroxymethyl) aminomethane is not present on state lists from CA, PA, MN, MA, FL, or NJ. Boric acid is not present on state lists from CA, PA, MN, MA, FL, or NJ. California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 60-00-4: 2 CAS# 77-86-1: 1

CAS# 10043-35-3: 1

United Kingdom Occupational Exposure Limits

Canada

CAS# 60-00-4 is listed on Canada's DSL/NDSL List.

CAS# 77-86-1 is listed on Canada's DSL/NDSL List.

CAS# 10043-35-3 is listed on Canada's DSL/NDSL List. WHMIS: Not available.

CAS# 60-00-4 is not listed on Canada's Ingredient Disclosure List.

CAS# 77-86-1 is not listed on Canada's Ingredient Disclosure List.

CAS# 10043-35-3 is not listed on Canada's Ingredient Disclosure List. Exposure Limits

CAS# 10043-35-3: OEL-RUSSIA: STEL 10 mg/m³

16. Other information

Disclaimer: For research use only.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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