

Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Product number : M3206

Product name :

TBE-Buffer (10X) ready-to-use solution in PE bottle

1. Identification of the substance/preparation and of the company

Product identifier

Product Name: TBE-Buffer (10X) ready-to-use solution in PE bottle

Catalogue-No.: M3206

CAS Number:

EC Number:

Index-Number:

REACH Registration Number: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.

Application of the substance/the preparation

Laboratory chemical

Chemical analytics

Biochemistry

Details of the supplier of the safety data sheet

Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.

Tel.: +49 (0)731 3608 123, info@genaxxon.com

Further information available from: General Management

Emergency telephone number:

Poison Information Centre Mainz, Germany, Tel.: +49 (0)6131 19240 / 24 h

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazards identification

Classification of the substance/preparation/mixture

Classification according to Regulation (EC) No 1272/2008

Classification according to Regulation (EC) No 1272/2008

Skin Irritation – Category 2 H315 Causes skin irritation.

Eye Irritation – Category 2A H319 Causes serious eye irritation.

Reproductive Toxicity – Category 1 H360 May damage fertility or the unborn child.

Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS07 GHS08

Signal word: Danger

Hazard-determining components of labelling:

boric acid

Hazard statements

H315 Causes skin irritation.

H319: Causes serious eye irritation.

H360: May damage fertility or the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P302-P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Hazard description:

WHMIS symbols:

D2A – Very toxic material causing other toxic effects.



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Classification system:
NFPA ratings (scale 0 – 4)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 -4)

HEALTH	**1
FIRE	0
REACTIVITY	0

Health = *1
Fire = 0
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable

3. Composition/information on ingredients

Chemical characterisation: Mixtures

Description: aqueous solution.

Dangerous components		
	TRIS	
10043-35-3	boric acid	65% (w/w)

4. First Aid Measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air; consult a doctor/physician in case of complaints. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth.

Make victim drink water (maximum of 2 drinking glasses).

Do not induce vomiting; call for medical help immediately.

If symptoms persist consult doctor.

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting Measures

Extinguishing media

Suitable extinguishing agents: powder, water spray or CO₂. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet.

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released.

Carbon oxides (CO, CO₂)

Nitrogen oxides (NO_x)

Advice for fire-fighters

Protective equipment: Wear self-contained respiratory protective device.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations..

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. Accidental release Measures

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Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Do not inhale steams/aerosols.
Avoid substance contact.

Environmental precautions: Do not allow product to enter drains/sewers/surface or ground water.

Methods and materials for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Clean up affected area.
Dispose contaminated material as waste according to section 13 of this data sheet.

Reference to other sections

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment
See Section 13 for disposal information

7. Handling and storage

Handling

Precautions for safe handling: No special precautions are necessary is used correctly.

Information about fire – and explosion protection: No special measures required.

Conditions for safe storage

Storage:

Requirements to be met by storerooms and receptacles: No special measures required.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep container tightly sealed.

Recommended storage temperature: +15°C to +25°C.

Storage class: 6.1 D

Special requirements: No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:		
EL	Short-term value: 6mg/m3 Long-term value: 2mg/m3	
EV	Short-term value: 6mg/m3 Long-term value: 2mg/m3 inorganic, inhalable	

Additional information: The list valid during the making were used as basis.

Exposure controls:

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with eyes and skin.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing.

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Respiratory protection required when vapours/aerosols are generated. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Filter ABEK (EN 143).



Filter ABEK (EN 143)

Protection of hands:

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Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.7 mm

Value for permeation: Level: >480 min.

As protection from splashes gloves made of the following materials are suitable:

Fluorocarbon rubber (Viton)

Recommended thickness of the material: ≥ 0.7 mm

Value for the permeation: Level ≥ 120 min.

Eye/face protection: Tightly sealed goggles.



Tightly sealed goggles (EN 166)

Body protection:

Use protective suit.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance

Form:	Liquid
Colour:	Colourless
Odour:	Odorless
Odour threshold:	Not determined

pH value at 20°C (50g/L): 8.3

Change in conditions

Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	Undetermined

Flash point: Not applicable

Flammability (solid, gaseous): Product is not flammable

Ignition temperature: $+480^{\circ}\text{C}$

Decomposition temperature: Not determined

Self-ignition: Not determined

Danger of explosion: Product does not represent an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapour pressure: Not applicable

Density (20°C): Not determined

Solubility in / Miscibility with (water, 20°C): Fully miscible.

Partition coefficient (n-octanol/water): Not determined

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Viscosity:

Dynamic: Not determined

Kinematic: Not determined

Solvent content:

Organic solvents: 0.0%

Solids content: 17.0%

Other information:

No further relevant information available.

10. Stability and reactivity

Reactivity: No dangerous reactions known.

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: In the event of fire: See chapter 5 of this data sheet.

Additional information: None

11. Toxicological information

Information on toxicological effects

Acute toxicity:

LD50/LC50 values relevant for classification

Component(s)	Type	Value	Species
10043-35-3 boric acid			
	Oral	LD50	2660mg/kg (rat)

Primary irritant effect

on the eye: May cause eye irritation.

After inhalation: No data available.

Sensitization: No sensitizing effect known.

Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

The product should be treated with usual precautions while handling chemicals.

12. Ecological Information

Toxicity

Aquatic toxicity:

Type of test	Effective concentration	Method	Assessment
10043-35-3	boric acid		
EC50/48 h	133mg/L (daphnia magna) (ECOTOX Database)		
LC50/96 h	50 – 100mg/L (Oncorhynchus mykiss) (ECOTOX Database)		

Persistence and degradability: No further relevant information available.

Behaviour in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information

General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or larger quantities of it to reach ground water, water course or sewage system.

Do not allow to enter waters, waster water, or soil.

Result of PBT and vPvB assessment

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PBT: Not applicable

vPvB: Not applicable

Other adverse effects: No further relevant information available.

13. Disposal considerations

Waste treatment methods:

Recommendation: Offer surplus and non-recyclable solutions to a licensed disposal company. Must not be disposed together with household garbage. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Uncleaned/contaminated packaging: Dispose of as unused product.

Recommendation: Disposal must be made according to official regulations.

14. Transport information

UN-Number

DOT, TDG, IMDG, IATA Void

UN proper shipping name

DOT, TDG, IMDG, IATA Void

Transport hazard class(es)

DOT, TDG, IMDG IATA Void

Packaging group

DOT, TDG, IMDG, IATA Void

Environmental hazards:

Marine pollutant No

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

15. Regulatory information

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

Sara

Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

	TRIS	
10043-35-3	boric acid	

Canadian substance listings:

Canadian Domestic Substances List (DSL) All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%) None of the ingredients is not listed.

Canadian Ingredients Disclosure list (limit 1%)

	TRIS	
10043-35-3	boric acid	

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not

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represent any guarantee of the properties of the product. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product.

Relevant phrases

H315 Causes skin irritation.
H319: Causes serious eye irritation.
H360: May damage fertility or the unborn child.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service (division of the American Chemical Society)
EINECS: European Inventory of Existing Commercial Chemical Substances
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
GHS: Globally Harmonized System of Classification and labeling of Chemicals
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
IMDG: International Maritime code for Dangerous Goods
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).