

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

· **Trade name:** foodproof® Sample Preparation Kit III

· **Article number:** S 400 06.1

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

No further relevant information available.

· **Application of the substance / the mixture** Detection System Solutions

1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

BIOTECON Diagnostics GmbH

Hermannswerder Haus 17

14473 Potsdam

Phone: +49 (0) 331-23 00 200

www.bc-diagnostics.com

· **Informing department:**

Phone: +49 (0) 331-23 00 200

Fax: +49 (0) 331-23 00 299

· **1.4 Emergency telephone number:** Phone: +49 (0) 331-23 00 200

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R22: Harmful if swallowed.



Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 1)

 Xi; Irritant

R37/38-41: Irritating to respiratory system and skin. Risk of serious damage to eyes.

- **Classification system:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

guanidinium chloride
Triton X-100
Proteinase, Tritirachium album serine
cetrimonium bromide

- **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

- **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:** Aqueous solution for isolation of DNA from raw material and food products

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 2)

· Dangerous components:

CAS: 50-01-1 EINECS: 200-002-3 Reg.nr.: 01-2119977063-35-X	guanidinium chloride ☒ Xn R22; ☒ Xi R36/38 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	25-50%
CAS: 9002-93-1	Triton X-100 ☒ Xn R22; ☒ Xi R41 ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	10-25%
CAS: 39450-01-6 EINECS: 254-457-8	Proteinase, Tritirachium album serine ☒ Xn R42/43; ☒ Xi R36/37/38 ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 57-09-0 EINECS: 200-311-3 Reg.nr.: 01-2119989160-35-X	cetrimonium bromide ☒ Xn R22; ☒ Xi R37/38-41; ☒ N R50 ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335	2.5-10%
CAS: 6381-92-6 EINECS: 205-358-3	ethylendiamine, tetraacetic acid, disodium salt ☒ Xn R20/21/22; ☒ Xi R36/37/38 R52/53 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	2.5-10%

· SVHC

9002-93-1 | Triton X-100

· Components according to regulation EC 648/2004 on detergents

non-ionic surfactants | 15 - 30%

· Additional information For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- **General information** Remove contaminated clothing immediately.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**
Instantly 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.
Call a doctor immediately.
- **After swallowing** Do not induce vomiting; instantly call for medical help.

· 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
· Suitable extinguishing agents

Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· 5.2 Special hazards arising from the substance or mixture

Formation of poisonous gases during heating or in fires.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 3)

- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Observe information for safe handling (item 7) and personal protective equipment (item 8).
- **6.2 Environmental precautions:**
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Send for recovery or disposal in suitable containers.
- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Store in cool, dry place in tightly closed containers.
Keep away from heat and direct sunlight.
Avoid contact with eyes and skin.
 - **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage**
 - **Requirements to be met by storerooms and containers:**
Store only in the original container.
Prevent any penetration into the ground.
 - **Information about storage in one common storage facility:**
Keep away from strong oxidizing, alkalis and acidic materials.
 - **Further information about storage conditions:** Storage temperature < 25 °C.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
 - **Personal protective equipment**
 - **General protective and hygienic measures**
The usual precautionary measures should be adhered to general rules for handling chemicals.
 - **Breathing equipment:** Not required.
 - **Protection of hands:** Use gloves of stable material (i.e. nitril rubber).
 - **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.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 4)

- **Eye protection:** Safety glasses recommended during refilling.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

- **Form:** Liquid
- **Colour:** Colourless
- **Odour:** odourless

· **pH-value at 20 °C:** ca.8

· Change in condition

- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** >100 °C

· **Flash point:** Not applicable

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density** Not determined

· Solubility in / Miscibility with

- **Water:** Dispersible

· Solvent content:

- **Organic solvents:** 0 %

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided:

None in case of intended use and storage in compliance with instructions.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known

· **10.4 Conditions to avoid** No further relevant information available.

· **10.5 Incompatible materials:** No further relevant information available.

· 10.6 Hazardous decomposition products:

None in case of intended use and storage in compliance with instructions.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

50-01-1 guanidinium chloride

Oral	LD50	773.6 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50	3.181 mg/l/4h (rat)

· Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 5)

- **Sensitisation:**
Sensitizing effect is possible by skin contact and/or inhalation by prolonged exposure.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Harmful

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

50-01-1 guanidinium chloride

EC50 (static)	11.8 mg/l/72h (Pseudokirchneriella subcapitata)
	1758 mg/l/48h (Leuciscus idus)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must be specially treated under adherence to official regulations.
The waste code numbers mentioned are recommendations based on the probable use of the product.

· European waste catalogue

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 07 00	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 08*	other still bottoms and reaction residues

· Uncleaned packagings:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

- **ADR, ADN, IMDG, IATA** Void

· 14.2 UN proper shipping name

- **ADR, ADN, IMDG, IATA** Void

(Contd. on page 7)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 6)

· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 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":	-

SECTION 15: Regulatory information

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

· **Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

guanidinium chloride
Triton X-100
Proteinase, Tritirachium album serine
cetrimonium bromide

· **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
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H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

· **Precautionary statements**

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P280 Wear protective gloves / eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P405 Store locked up.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 7)

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations**

- **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

· **Substances of very high concern (SVHC) according to REACH, Article 57**

9002-93-1	Triton X-100
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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 R22 Harmful if swallowed.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R36/38 Irritating to eyes and skin.
 R37/38 Irritating to respiratory system and skin.
 R41 Risk of serious damage to eyes.
 R42/43 May cause sensitisation by inhalation and skin contact.
 R50 Very toxic to aquatic organisms.
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing data specification sheet:**

This Material Safety Data Sheet has been drawn up in cooperation with:
 DEKRA Consulting GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
 tel.: (+49) 511 42079 311, reach@dekra.com.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.11.2014

Version number 2

Revision: 25.11.2014

Trade name: foodproof® Sample Preparation Kit III

(Contd. from page 8)

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
· * **Data compared to the previous version altered.**

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