

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

Printing date 08.05.2015

Version number 2

Revision: 08.05.2015

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

- **1.1 Product identifier**
  - **Trade name:** foodproof Sample Preparation Kit I
  - **Article number:** S 400 04
- **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**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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



Xn; Harmful

R22: Harmful if swallowed.



Xi; Irritant

R38-41: Irritating to skin. Risk of serious damage to eyes.

R10-67: Flammable. Vapours may cause drowsiness and dizziness.

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- **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**



GHS02 GHS05 GHS07

- **Signal word** Danger

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

guanidinium chloride

Triton X-100

propan-2-ol

- **Hazard statements**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing 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.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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 reagent solution for the preparation of DNA for direct use in PCR.

- **Dangerous components:**

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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: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25-X	propan-2-ol ☒ Xi R36; 🔥 F R11 R67 ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 9002-93-1	Triton X-100 ☒ Xn R22; ☒ Xi R41 ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	10-25%

**• SVHC**

9002-93-1 Triton X-100

**• 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.

Can be released in case of fire:

Carbon monoxide (CO)

Nitrogen oxides (NO<sub>x</sub>)

Hydrogen chloride (HCl)

**• 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**

Wear protective equipment. Keep unprotected persons away.

**• 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.

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

### 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:**  
Keep ignition sources away - Do not smoke.
- **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.
    - **Storage class 3** (flammable liquid substances) according to TRGS 510 (German legislation)
- **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:**

#### 67-63-0 propan-2-ol

WEL (Great Britain)	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
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- **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.
  - **Eye protection:** Safety glasses recommended during refilling.
  - **Body protection:** Protective work clothing.

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### 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: 25 °C

· Self-inflammability: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive gas-/air mixtures is possible.

##### · Critical values for explosion:

- Lower: 2.0 Vol %
- Upper: 12.0 Vol %

· Density: Not determined

##### · Solubility in / Miscibility with

- Water: Dispersible

##### · Solvent content:

- Organic solvents: 35 %
- Water: 0.0 %

· 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:

No decomposition if used according to specifications.

· 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:

- Skin corrosion/irritation: Irritant to skin and mucous membranes.

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- **Serious eye damage/irritation** Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation** No sensitizing effect known.
- **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:**  
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- **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, IMDG, IATA

UN1993

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· **14.2 UN proper shipping name**

· **ADR**1993 FLAMMABLE LIQUID, N.O.S.  
(ISOPROPANOL (ISOPROPYL ALCOHOL)),  
special provision 640E· **IMDG, IATA**FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL  
(ISOPROPYL ALCOHOL))

· **14.3 Transport hazard class(es)**

· **ADR**· **Class**

3 (F1) Flammable liquids.

· **Label**

3

· **IMDG, IATA**· **Class**

3 Flammable liquids.

· **Label**

3

· **14.4 Packing group**

· **ADR, IMDG, IATA**

III

· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Warning: Flammable liquids.

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

Not applicable.

· **Transport/Additional information:**

· **ADR**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging:  
30 mlMaximum net quantity per outer packaging:  
1000 ml· **Transport category**

3

· **Tunnel restriction code**

D/E

· **IMDG**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging:  
30 mlMaximum net quantity per outer packaging:  
1000 ml· **UN "Model Regulation":**UN1993, FLAMMABLE LIQUID, N.O.S.  
(ISOPROPANOL (ISOPROPYL ALCOHOL)),  
special provision 640E, 3, III

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### 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**



GHS02 GHS05 GHS07

· **Signal word** Danger

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

guanidinium chloride

Triton X-100

propan-2-ol

· **Hazard statements**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing 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.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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 hazard class 1 (Self-assessment): slightly hazardous for water.

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

None of the ingredients is contained.

· **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**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- R11 Highly flammable.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R41 Risk of serious damage to eyes.
- R67 Vapours may cause drowsiness and dizziness.

· **Department issuing data specification sheet:**

This Material Safety Data Sheet has been drawn up in cooperation with:  
 DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,  
 phone: (+49) 511 42079 - 0, reach@dekra.com.  
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· **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  
 Flam. Liq. 2: Flammable liquids, Hazard Category 2  
 Flam. Liq. 3: Flammable liquids, Hazard Category 3  
 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  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **\* Data compared to the previous version altered.**

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