

Date of issue: 10.06.2005 Replaces Data Sheet of: 02.07.2002

"\*" alterations as compared to previous version;

n.ap. = not applicable; n.av. = not available



**1 Identification of Substance / Preparation and Company**

**1.1 Identification of Substance or Preparation**

Trade Name: Wash Buffer I

Article No.: -

Component of: GenoType DNA Isolation Kit

**1.2 Use of the substance / preparation:**

Analytics, Diagnostics

**1.3 Company / Supplier Identification**

**1.3.1 Address of the Company / Supplier:**

Hain Lifescience GmbH, Hardwiesenstr. 1, D - 72147 Nehren

Telephone: +49 (0)-30-94 89-3796, Fax: +49-30-94 89-3795

**1.4 Emergency - Telephone**

Informing Department Emergency-Telephone of Company / Undertaking

Telephone: +49 (0) 7473 / 9451 - 30 Telephone: +49 (0) 7473 / 9451 - 0

**2 Composition / Information on Ingredients**

**2.1 Chemical Characterisation:**

Aqueous solution of buffers

**2.2 Dangerous Ingredients:**

CAS - No.	Index - No.	EEC - No.	Material	m% - range	Symbol	R - phrases
* 593-84-0	615-004-00-3	209-812-1	Guanidinthiocyanat	25 - 50%	Xn	R 20/21/22-32-52/53

Remarks: Classification and labelling of a product is indicated under item 15.

**3 Hazards Identification**

**3.1 For Humans (additional information is given under item 11):**

Degreases skin. Harmful by inhalation, in contact with skin and if swallowed. May cause skin and eye irritation. Contact with acids liberates very toxic gas.

**3.2 For the Environment:**

Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**3.3 For Materials:**

Materials should be tested for resistance.

**4 First Aid Measures**

**4.1 Inhalation:**

Risk of pulmonary oedema. Remove from danger area and provide for fresh air. In the event of symptoms occurring, seek medical treatment.

**4.2 Skin Contact:**

Wash off immediately with large amounts of water. If symptoms persist, consult physician.

**4.3 Eye Contact:**

Flush eyes out immediately with large amounts of water with eye lids lifted. Call physician.

**4.4 Ingestion:**

Do not cause vomiting. Rinse mouth out and drink plenty of water. Summon a doctor immediately.

Tradename: Wash Buffer I

Company / Distributor: Hain Lifescience GmbH, Hardwiesenstr. 1, D – 72147 Nehren

Telephone: +49 (0) 7473 / 9451 – 0, **Date of issue:** 10.06.2005 **Replaces Data Sheet of:** 02.07.2002

**4.5 Note to Physician:**  
Continue to monitor for pneumonia and pulmonary oedema. Symptomatic treatment.

**4.6 Special Equipment:**  
n.av.

## 5 Fire Fighting Measures

**5.1 Suitable Extinguishing Media: Water spray jet, foam, dry chemicals, CO2.**

**5.2 Extinguishing Media to Avoid: None.**

**5.3 Fire and Explosion Hazards:**

In case of fire, product may form: Organic crackproducts and carbon oxides, nitrogenoxides (NO<sub>x</sub>), Thiocyanates.

**5.4 Additional Information:** This material is not combustible; use extinguishing media appropriate for surrounding fire.

**5.5 Special Protective Equipment:**

Wear positive pressure self-contained breathing apparatus.

Wear full protective clothing.

## 6 Accidental Release Measures

**6.1 Personal Precautions:**

See No. 8.3 Personal Protective Equipment. Provide sufficient ventilation.

**6.2 Environmental Precautions and Methods for Cleaning up:**

Do not allow to enter drainage / surface-water / ground-water. Inform responsible authorities after accidental conduction. Take up with suitable absorbent material.

**6.3 Further Information: None.**

## 7 Handling and Storage (For national regulations refer to item 15.2)

**7.1 Handling**

**7.1.1 Precautions for Safe Handling:**

Keep container tightly closed. Close container straight after use or if empty. Application only when sufficient ventilated.

**7.1.2 Precautions in Case of Fire and Explosion:**

No special measures necessary if used correctly.

**7.2 Storage**

**7.2.1 Storage Instructions:**

Provide solvent resistant and tight floor. Provide sufficient ventilation.

**7.2.2 Store away from:**

Store away from oxidizers.

**7.2.3 Further Information on Storage Conditions:**

Protect container from warming up and direct sunlight.

**7.2.4 Storage Class: 12 (VCI - Concept)**

## 8 Exposure Controls and Personal Protection

**8.1 Information on System Design:**

Provide for sufficient exhaustion. Provide personal protective equipment.

**8.2 Exposure Limits:**

**8.2.1 Material**

Limit Value:

Guanidinthiocyanat

n.av.

**8.3 Personal Protective Equipment**

**8.3.1 General Protection and Hygiene:**

Avoid contact with eyes and skin. Take off contaminated, saturated clothing immediately. Do not inhale dust, gas, vapours, fire -fumes. Do not eat, drink or smoke during work.

**Tradename: Wash Buffer I**

Company / Distributor: Hain Lifescience GmbH, Hardwiesenstr. 1, D – 72147 Nehren

Telephone: +49 (0) 7473 / 9451 – 0, **Date of issue:** 10.06.2005 **Replaces Data Sheet of:** 02.07.2002

- 8.3.2 Respiratory Protection: If ventilation is insufficient, wear respiratory protection (Filter for Isothiocyanates)
- 8.3.3 Hand Protection: Gloves (solvent-resistant)
- 8.3.4 Eye Protection: Tightly fitting goggles
- 8.3.5 Skin Protection: Light protective clothing
- 8.3.6 Further Information: Refer to special restrictions in wearing protective equipment

## 9 Physical and Chemical Properties

### 9.1 Appearance

9.1.1 Form: liquid 9.1.2 Colour: colourless 9.1.3 Odour: characteristic

### 9.2 Safety Relevant Data

- 9.2.1 pH-value, undiluted: n.ap. pH-value, 1% aqueous solution: n.av.
- 9.2.2 Boiling point / Boiling - range (°C): ~ 100 Melting point / Melting range (°C): n.av.
- 9.2.3 Flash point (°C, c.c.): n.ap.
- 9.2.4 Flammability (EEC A10/A13): n.ap.
- 9.2.5 Ignition temperature (°C): n.ap.
- 9.2.6 Autoflammability (EEC A16): n.ap.
- 9.2.7 Oxidising properties: None.
- 9.2.8 Explosion hazard: n.av.
- 9.2.9 Explosion limits (Vol.%) lower: None. upper: None.
- 9.2.10 Vapour pressure: n.av.
- 9.2.11 Density (g/ml): ~ 1,1
- 9.2.12 Solubility (in Water): miscible Soluble in: most organic solvents.
- 9.2.13 Partition coefficient, n-Octanol/Water: n.av.
- 9.2.14 Viscosity: n.av.
- 9.2.15 Solvent separation test: n.ap.
- 9.2.16 Solvent content (m %): n.ap.

### 9.3 Further Data

- 9.3.1 Thermal decomposition (°C): n.av.
- 9.3.2 Vapour density (Air = 1): n.ap.
- 9.3.3 Evaporation rate: n.av.

## 10 Stability and Reactivity

### 10.1 Conditions to Avoid:

No special measures necessary if used correctly.

### 10.2 Materials to Avoid:

Reactions with strong oxidizing agents, acids, lyes

### 10.3 Hazardous Decomposition Products:

Thiocyanate

### 10.4 Further Information:

None.

## 11 Toxicological Information

### 11.1 Toxicological Tests:

#### 11.1.1 Acute Health Effects:

- Inhalation, LC50 rat, (mg/l/4h): n.av.
- Ingestion, LD50 rat, (mg/kg): n.av.
- Skin - contact, LD50 rat, (mg/kg): n.av.
- Irritation (to skin / eye): Irritating to skin. Moderate eye irritation.
- Sensitisation: Can not be excluded.

# Safety Data Sheet in Accordance with 91/155/EEC

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Telephone: +49 (0) 7473 / 9451 – 0, **Date of issue:** 10.06.2005 **Replaces Data Sheet of:** 02.07.2002

- 11.1.2 Subacute / Chronic Toxicity:
- |                   |       |
|-------------------|-------|
| Carcinogenicity:  | n.av. |
| Mutagenicity:     | n.av. |
| Teratogenicity:   | n.av. |
| Narcotic Effects: | None. |

### 11.2 Practical Experience

11.2.1 Observations relevant for classification: n.av.

11.2.2 Further Observations:  
Frequent or permanent contact to skin may lead to irritation or dermatitis.

### 11.3 General Remarks:

Classification of the preparation has been done by calculation in accordance with EEC directives.

## 12 Ecological Information

12.1 **Ecotoxic Effects, Aquatic Toxicity:** n.av.

### 12.2 Behaviour in Sewage Works:

Mobility and Accumulation Potential: n.av.

### 12.3 Elimination (Persistence and Degradability):

The product is highly volatile and can be largely eliminated from the water by stripping.

### 12.4 Other Ecological Information

12.4.1 COD-Value, mg/g: n.av.

12.4.2 BOD5-Value, mg/g: n.av.

12.4.3 AOX-Remarks: n.av.

12.4.4 Significant Components: None.

12.4.5 Other adverse effects: None.

## 13 Disposal Considerations (For national Regulations refer to item 15.)

### 13.1 Residues

13.1.1 Recommendation: R 2 / D 10 Waste - Code - No.: 07 06 99

In addition comply with the regional authorities.

13.1.2 Safe Handling: See item 7 and 15.

### 13.2 Contaminated Packaging

13.2.1 Recommendation: Wash with suitable cleaner. Otherwise as described under Residues.

13.2.2 Safe Handling: As described under Residues.

## 14 Transport Information

### 14.1 Transportation by Road or Railway according to ADR and RID

**Remarks: No dangerous goods according to ADR**

Class: Classification Code: Packing Group:

Hazard-No.: UN-No.:

14.1.1 Instruction Concerning Shipper's Declaration and Packaging:

Volume or Mass	Name and Description	Risklabel Packing – Code or instruction
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### 14.2 Classification for Transportation by Inland-Navigation according to ADNO

**Remarks: Classification has not been done.**

Class: Division: Category:

14.2.1 Description of Goods:

14.2.2 Remarks:

### 14.3 Classification for Transportation by Vessels according to IMDG

**Remarks: No dangerous goods according to IMDG**

Class: UN-No.: Packing Group:

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Telephone: +49 (0) 7473 / 9451 – 0, **Date of issue:** 10.06.2005 **Replaces Data Sheet of:** 02.07.2002

- 14.3.1 EmS-No.:
- 14.3.2 Marine Pollutant:
- 14.3.3 Instruction for Declaration and Labelling:  
(Packing sizes with possible exemptions not considered)

**Proper Shipping Name:**

**Risk Label:**

- 14.3.4 Remarks:

**14.4 Classification for Transportation by Aeroplane according to IATA-DGR/ICAO-TI**

**Remarks: No dangerous goods according to IATA-DGR**

Class:                    UN-No.:                    Packing Group:

- 14.4.1 Instruction for Declaration and Labelling:  
(Packing sizes with possible exemptions not considered)

**Proper Shipping Name:**

**Risk Label:**

Packing Instructions, Passenger:                    Cargo:

- 14.4.2 Remarks:

## 15 Regulatory Information

**15.1 Classification according to EEC-Regulations:**

Classification required by EEC: Yes.

Hazard Identification: Harmful

\* Component(s): Contains Guanidinthiocyanate

Applicable Exemptions: No.

Hazard Symbol(s): <sup>Xn</sup>



**R-Phrases:**

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R 32: Contact with acids liberates very toxic gas.

\* R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-Phrases:**

(S 2: Keep out of reach of children.)

S 13: Keep away from food, drink and animal feeding stuffs.

S 61: Avoid release to the environment. Refer to special instruction / Safety data sheets.

Additional Markings:

- 15.1.1 The above mentioned labelling is valid for distribution to industrial user.  
Labelling (formats, exemptions, additional markings) has to be done according to respective regulations.

**15.2 National Regulations (valid for Germany only)**

15.2.1 Beschäftigungsbeschränkung nach MuSchG / JArbSchG beachten:                    Yes.

15.2.2 Aufbewahrungspflicht nach § 8 (6) GefStoffV beachten:                    Yes.

15.2.3 Störfallverordnung beachten:                    Yes.

15.2.4 Technische Anleitung Luft:                    Klasse                    Ziffer                    Anteil m%

15.2.5 Wassergefährdungsklasse:                    2 (Classification according to VwVwS)

15.2.6 Regelungsbereich der TRGS 514 beachten:                    No.

15.2.7 Regelungsbereich der TRGS 515 beachten:                    No.

15.2.8 Regelungsbereich der TRG 300 beachten:                    No.

15.2.9 Regelungsbereich des WRMG beachten:                    No.

15.2.10 Gesundheitsschädlich i.S.d. § 2 Abs. 3 der Verpackungsverordnung:                    Yes.

15.2.11 Sonstige zu beachtende Vorschriften:                    TRGS 150

## 16 Other Information

**Text of R phrases mentioned in Section 2**

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R 32: Contact with acids liberates very toxic gas.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

# Safety Data Sheet in Accordance with 91/155/EEC

Page 6 of 6

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This Material Safety Data Sheet relates to 2001/58/EEC and TRGS 220.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible.

They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.