

**Trade name:** CyStain® DNA 2 step - Buffer Reagent

**Product no.:** 05-5005 C

**Current version :** 1.0.0, issued: 22.10.2014

**Replaced version:** -, issued: -

**Region:** GB

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

### 1.1 Product identifier

**Trade name**

**CyStain® DNA 2 step - Buffer Reagent**

**Identification numbers**

CAS no. 5949-29-1

EC no. 201-069-1

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

**Relevant identified uses of the substance or mixture**

laboratory chemicals

### 1.3 Details of the supplier of the safety data sheet

**Address**

Sysmex Partec GmbH

Am Flugplatz 13

02828 Görlitz

Telephone no. +49 3581 8746-0

Fax no. +49 3581 8746-70

Email info@sysmex-partec.com

**Information provided by / telephone**

Dr. Dirk Colditz, Tel. +49 3581 8746-0

**Advice on Safety Data Sheet**

sdb\_info@umco.de

### 1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Eye Irrit. 2; H319

**Classification in accordance with Directive 67/548/EEC or 1999/45/EC**

Xi; R36

### 2.2 Label elements

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

**Product identifier**

5949-29-1 (citric-acid-monohydrate)

**Hazard pictograms**



GHS07

**Signal word**

Warning

**Hazard statements**

H319

Causes serious eye irritation.

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#### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.  
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.  
P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3 Other hazards

PBT assessment  
No data available.

vPvB assessment  
No data available.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

##### Chemical characterization

Substance name citric-acid-monohydrate  
Formula C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>  
Molecular weight 210.1

##### Identification numbers

CAS no. 5949-29-1  
EC no. 201-069-1

#### 3.2 Mixtures

Not applicable. The product is not a mixture.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

##### After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

##### After skin contact

Wash off immediately with soap and water.

##### After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

##### After ingestion

Call a doctor immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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

No data available.

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

No data available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Foam; Extinguishing powder; Carbon dioxide; Water spray jet

##### Unsuitable extinguishing media

High power water jet

#### 5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO)

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### 5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Refer to protective measures listed in sections 7 and 8.

#### For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".

### 6.4 Reference to other sections

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far as possible by the state of the art.

#### General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Wash hands and skin before breaks and after work. Do not inhale dust. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately.

#### Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Dust can form an explosive mixture with air.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions

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

#### Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage.

#### Advice on storage assembly

Do not store together with: Oxidizing agents; Acids; Bases

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

No parameters available for monitoring.

### 8.2 Exposure controls

#### Appropriate engineering controls

No data available.

#### Personal protective equipment

##### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

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### Eye / face protection

Safety glasses with side protection shield (EN 166)

### Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material                      nitrile rubber  
Appropriate Material                      Natural rubber, NR

### Other

Normal chemical work clothing.

### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form/Colour</b>	
crystalline	
white	
<b>Odour</b>	
odourless	
<b>Odour threshold</b>	
No data available	
<b>pH value</b>	
Value	1.8
Reference temperature	25 °C
Concentration	5 g/l
<b>Boiling point / boiling range</b>	
No data available	
<b>Melting point / melting range</b>	
Value	135 - 152 °C
<b>Decomposition point / decomposition range</b>	
Value	> 170 °C
<b>Flash point</b>	
No data available	
<b>Ignition temperature</b>	
Value	345 °C

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<b>Auto-ignition temperature</b>
No data available

<b>Oxidising properties</b>
No data available

<b>Explosive properties</b>
No data available

<b>Flammability (solid, gas)</b>
No data available

<b>Lower flammability or explosive limits</b>
No data available

<b>Upper flammability or explosive limits</b>
No data available

<b>Vapour pressure</b>
No data available

<b>Vapour density</b>
No data available

<b>Evaporation rate</b>
No data available

<b>Relative density</b>
No data available

<b>Density</b>			
Value	1.54	g/cm <sup>3</sup>	
Reference temperature	20	°C	

<b>Bulk density</b>			
Value	550	-	950
Reference temperature	20		°C
			kg/m <sup>3</sup>

<b>Solubility in water</b>			
Value	675	g/l	
Reference temperature	25	°C	

<b>Solubility(ies)</b>
No data available

<b>Partition coefficient: n-octanol/water</b>
No data available

<b>Viscosity</b>
No data available

## 9.2 Other information

<b>Other information</b>
No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Dangerous reactions are not expecting handling the product according to its intended use.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions

None, if handled according to order.

### 10.4 Conditions to avoid

None, if handled according to order.

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## 10.5 Incompatible materials

Oxidizing agents; strong acids; strong bases

## 10.6 Hazardous decomposition products

None, if handled according to order

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	citric-acid-monohydrate	5949-29-1	201-069-1
LD50		3000	mg/kg bodyweight
Species	rat		
Source	Supplier		
Acute dermal toxicity			
No data available			
Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	citric-acid-monohydrate	5949-29-1	201-069-1
Source	Supplier		
Evaluation	non-irritant		
Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	citric-acid-monohydrate	5949-29-1	201-069-1
Source	Supplier		
Evaluation	irritant		
Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	citric-acid-monohydrate	5949-29-1	201-069-1
Route of exposure	Skin		
Source	Supplier		
Evaluation	non-sensitizing		
Germ cell mutagenicity			
No data available			
Reproduction toxicity			
No data available			
Carcinogenicity			
No data available			
STOT-single exposure			
No data available			
STOT-repeated exposure			
No data available			
Aspiration hazard			
No data available			
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Inhalation of dusts may irritate the respiratory tract.			

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## SECTION 12: Ecological information

### 12.1 Toxicity

<b>Toxicity to fish (acute)</b>
No data available
<b>Toxicity to fish (chronic)</b>
No data available
<b>Toxicity to Daphnia (acute)</b>
No data available
<b>Toxicity to Daphnia (chronic)</b>
No data available
<b>Toxicity to algae (acute)</b>
No data available
<b>Toxicity to algae (chronic)</b>
No data available
<b>Bacteria toxicity</b>
No data available

### 12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	citric-acid-monohydrate	5949-29-1	201-069-1
Type		aerobic biodegradation	
Value		98	%
Duration		2	day(s)
Source		Supplier	

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

### 12.6 Other adverse effects

No data available.

### 12.7 Other information

Other information
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

#### Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

### 14.2 Transport IMDG

The product is not subject to IMDG regulations.

### 14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 14.6 Special precautions for user

No data available.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## SECTION 15: Regulatory information

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

#### EU regulations

#### **Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances**

Remarks

Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

### 15.2 Chemical safety assessment

No data available.

## SECTION 16: Other information

#### **Sources of key data used to compile the data sheet:**

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

#### **Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

R36 Irritating to eyes.

#### **Department issuing safety data sheet**

UMCO Umwelt Consult GmbH

Georg-Wilhelm-Str. 183, D-21107 Hamburg

Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 e-mail: umco@umco.de

This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.