

## Safety Data Sheet

### Ready to Use Citrate Buffer for Heat-Induced Epitope Recovery, pH6.0 (CA1) (OSHA)



**Diagnostic  
BioSystems**

## Safety Data Sheet

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#### SECTION 1: Identification

##### 1.1 GHS Product identifier

Product name	Ready to Use Citrate Buffer for Heat-Induced Epitope Recovery, pH6.0 (CA1) (OSHA)
Product number	K082
Brand	Ready to Use Citrate Buffer for Heat-Induced Epitope Recovery, pH6.0 (CA1)

##### 1.3 Recommended use of the chemical and restrictions on use

In Vitro Diagnostic Use

##### 1.4 Supplier's details

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

##### 1.5 Emergency phone number

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

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#### SECTION 2: Hazard identification

##### General hazard statement

For Professional Users Only

##### 2.1 Classification of the substance or mixture

###### GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal (C.4.2), Cat. 3
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 5

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- Acute toxicity, oral (C.4.1), Cat. 4

### 2.2 GHS label elements, including precautionary statements

#### Pictogram



1. Exclamation mark; 2. Skull and crossbones

#### Signal word

**Danger**

#### Hazard statement(s)

H302

Harmful if swallowed

H311

Toxic in contact with skin

H317

May cause an allergic skin reaction

H332

Harmful if inhaled

#### Precautionary statement(s)

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P264

Wash hands thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P272

Contaminated work clothing must not be allowed out of the workplace.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

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 person to fresh air and keep comfortable for breathing.

P312

Call a POISON CENTER/doctor if you feel unwell.

P330

Rinse mouth.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P361+P364

Take off immediately all contaminated clothing and wash it before reuse.

P362+P364

Take off contaminated clothing and wash it before reuse.

P405

Store locked up.

P501

Dispose of contents/container to a licensed disposal company.

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

##### 1. Glycerin

Concentration

25 % (volume)

Other names / synonyms

1,2,3-Propanetriol; 1,2,3-TRIHIDROXYPROPANE; 90 TECHNICAL GLYCERINE; GLYCERIN, ANHYDROUS; GLYCERIN, SYNTHETIC; Glycerin, U.S.P.; GLYCERINE; GLYCERITOL; Glycerol; Glycerolum; GLYCYL ALCOHOL; SYNTHETIC GLYCERINE; TRIHYDROXYPROPANE

EC no.

200-289-5

CAS no.

56-81-5

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### 2. SODIUM AZIDE

Concentration < 0.5 % (weight)

Other names / synonyms Sodium azide (Na(N3))

EC no. 247-852-1

CAS no. 26628-22-8

Index no. 011-004-00-7

- Acute toxicity, dermal (C.4.2), Cat. 1
- Acute toxicity, inhalation (C.4.3), Cat. 2
- Acute toxicity, oral (C.4.1), Cat. 2
- Specific target organ toxicity (repeated exposure) (C.4.12), Cat. 2
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

In case of skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists.

In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

If swallowed Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Personal protective equipment for first-aid responders

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available

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### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

#### 5.2 Specific hazards arising from the chemical

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Glycerol: Carbon oxides

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SODIUM AZIDE: Sodium oxides

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

No data available.

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### SECTION 6: Accidental release measures

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

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### 6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### Reference to other sections

For disposal see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place.

#### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**CAS: (not specified)**

Glycerin

ACGIH: 10 mg/m<sup>3</sup> TLV® inhalation

**CAS: 26628-22-8 (EC: 247-852-1)**

Sodium azide

ACGIH: 0.29 mg/m<sup>3</sup> (C); 0.1 ppm (C) hydrazoic acid vapor TLV® inhalation; NIOSH: 0.29 mg/m<sup>3</sup> (C); 0.1 ppm (C) hydrazoic acid vapor REL-C inhalation

**CAS: 56-81-5**

Glycerin

Cal/OSHA: PNOR PEL inhalation; 10 mg/m<sup>3</sup> PEL inhalation; 5 mg/m<sup>3</sup> PEL inhalation; NIOSH: See Appendix D REL inhalation; OSHA: 15 mg/m<sup>3</sup> PEL inhalation; 5 mg/m<sup>3</sup> PEL inhalation

#### 8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

##### Pictograms



##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Thermal hazards

No data available

##### Control banding approach

No data available.

##### Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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#### SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear
Color	Colorless
Odor	Odorless
Odor threshold	No data available.
pH	6.0
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

#### Particle characteristics

No data available.

#### Supplemental information regarding physical hazard classes

No data available.

#### Further safety characteristics (supplemental)

No data available.

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#### SECTION 10: Stability and reactivity

##### 10.1 Reactivity

None under normal use conditions.

##### 10.2 Chemical stability

Stable under recommended storage conditions.

##### 10.3 Possibility of hazardous reactions

None under normal use conditions.

##### 10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

##### 10.5 Incompatible materials

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Glycerol: Strong bases, Strong oxidizing agents

#### 10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

The ATE (dermal) of the mixture is: 1000 mg/kg bw

The ATE (gas inhalation) of the mixture is: 20000 ppmV

The ATE (vapor inhalation) of the mixture is: 100 mg/l

The ATE (oral) of the mixture is: 1000 mg/kg bw

Glycerol

LD50 Oral - Rat - 12,600 mg/kg

Glycerol

LD50 Skin - Rabbit - > 10,000 mg/kg

Sodium azide

LD50 Oral - Rat - 27 mg/kg

Sodium azide

LD50 Skin - Rat - 20 mg/kg

Sodium azide

LC50 Inhalation - Rat - 0.054 - 0.52 mg/l - 4 hr

#### Skin corrosion/irritation

Based on available data, classification data are not met

#### Serious eye damage/irritation

Causes eye irritation.

#### Respiratory or skin sensitization

Based on available data, classification data are not met

#### Germ cell mutagenicity

Based on available data, classification data are not met

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

Based on available data, classification data are not met

#### STOT-single exposure

No data available.

#### STOT-repeated exposure

No data available.

#### Aspiration hazard

No data available.

#### Additional information

No data available.

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## SECTION 12: Ecological information

#### Toxicity

Sodium azide

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 2.96 mg/l - 96 h

Sodium azide

EC50 - *Pseudokirchneriella subcapitata* (green algae) - 0.348 mg/l - 96 h

#### Persistence and degradability

No data available.

#### Bioaccumulative potential

No data available.

#### Mobility in soil

No data available.

#### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### Endocrine disrupting properties

No data available.

#### Other adverse effects

No data available.

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## SECTION 13: Disposal considerations

#### Disposal methods

#### Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Packaging disposal



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Dispose of as unused product.

#### Waste treatment

No data available

#### Sewage disposal

Do not let product enter drains

#### Other disposal recommendations

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

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## SECTION 14: Transport information

#### DOT (US)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

#### Canadian Domestic Substances List (DSL)

Chemical name: 1,2,3-Propanetriol

CAS: 30918-77-5

Chemical name: 1,2,3-Propanetriol

CAS: 56-81-5

Chemical name: Sodium azide (Na(N<sub>3</sub>))

CAS: 26628-22-8

#### Massachusetts Right To Know Components

Glycerol

CAS-No. 56-81-5

Chemical name: Sodium azide (Na(N<sub>3</sub>))

CAS number: 26628-22-8

#### New Jersey Right To Know Components

Common name: GLYCERIN

CAS number: 56-81-5

Glycerol

CAS-No. 56-81-5

Common name: SODIUM AZIDE

CAS number: 26628-22-8

#### Pennsylvania Right To Know Components

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Chemical name: 1,2,3-Propanetriol  
CAS number: 56-81-5

Glycerol  
CAS-No. 56-81-5

Chemical name: Sodium azide  
CAS number: 26628-22-8

#### **SARA 311/312 Hazards**

Acute Health Hazard

#### **Seveso Directive**

Yes. H2 -acute toxic. E1

#### **15.2 Chemical Safety Assessment**

The supplier of this product has not conducted any Chemical Safety Assessment

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### **SECTION 16: Other information**

SDS-0104, Rev. B

#### **16.1 Further information/disclaimer**

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic BioSystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.