

Buffer N3

Version 2.2

Revision Date 10/22/2015

Print Date 03/17/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Buffer N3

Manufacturer or supplier's detailsCompany : QIAGEN GmbH
QIAGEN Str. 1
D-40724 Hilden

Telephone : +49-02103-29-0

Responsible Department : QIAGEN Technical Service, QIAGEN Inc.,
27220 Turnberry Lane,
Valencia, CA 91355, USA,
Tel.: 1-800-DNA-PREP (1-800-362-7737),
Email: techservice-us@qiagen.comE-mail : cpc@qiagen.com
addressResponsible/issuing
personEmergency telephone : CHEMTREC
USA & Canada 1-800-424-9300**Recommended use of the chemical and restrictions on use**

Recommended use : Laboratory chemicals

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**Skin corrosion : Category 1A
Serious eye damage : Category 1**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.Precautionary Statements : **Prevention:**
P280 Wear protective gloves/ protective clothing/ eye
protection/ face protection.

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Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/ physician.

Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : No information available.

Carcinogenicity:**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

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

OSHA

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

NTP

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration [%]
guanidine hydrochloride	50-01-1	>= 30 - < 50
acetic acid	64-19-7	>= 10 - < 20

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water while

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removing all contaminated clothes and shoes.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact	: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eye.
If swallowed	: If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: Causes serious eye damage. Causes severe burns. No information available.
Notes to physician	: No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	: Do not allow run-off from fire fighting to enter drains or water courses. Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Specific extinguishing methods	: In the event of fire and/or explosion do not breathe fumes. Use a water spray to cool fully closed containers.
Special protective equipment for fire-fighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
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Evacuate personnel to safe areas.
 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

- Environmental precautions : Prevent product from entering drains.
 Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
 Do not breathe vapors/dust.
 Avoid contact with skin and eyes.
 For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Open drum carefully as content may be under pressure.
 Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
- Materials to avoid : Do not store together with oxidizing and self-igniting products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		ST	15 ppm 37 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	OSHA Z-1
		TWA	10 ppm 25 mg/m ³	OSHA P0

Personal protective equipment

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Respiratory protection	: In the case of vapor formation use a respirator with an approved filter.
Hand protection	
Remarks	: The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Material	: Protective gloves
Eye protection	: Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Do not wear contact lenses. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place. acid-resistant protective clothing Footwear protecting against chemicals Workers should wear antistatic footwear.
Hygiene measures	: Keep away from food and drink. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas. Avoid contact with the skin and the eyes. When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: No data available
Odor	: characteristic
Odor Threshold	: No data available
pH	: 4.3
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: > 160 °C
Evaporation rate	: No data available
Burning rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available

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Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: No data available
Density	: 1.15 g/cm ³
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions. Vapors may form explosive mixture with air. Keep away from oxidizing agents, and acidic or alkaline products.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: No data available
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

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Product:

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Ingredients:**guanidine hydrochloride :**

Acute oral toxicity : LD50 Oral Rat: 1,120 mg/kg

acetic acid :

Acute oral toxicity : LD50 Oral Rat: 3,310 mg/kg

Acute inhalation toxicity : LC50 Rat: 11.4 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal Rabbit: 1,112 mg/kg

Skin corrosion/irritation**Product:**

Extremely corrosive and destructive to tissue., Causes skin burns.

Serious eye damage/eye irritation**Product:**

Remarks:

May cause irreversible eye damage.

Respiratory or skin sensitization**Ingredients:****acetic acid:**

Remarks:

May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

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No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product:**

Remarks:

Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish : No data available

Toxicity to algae : No data available

Toxicity to bacteria : No data available

Ingredients:**acetic acid :**Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l
Exposure time: 96 h
Test Method: semi-static testToxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 300.82 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202**Persistence and degradability****Ingredients:****guanidine hydrochloride :**Biodegradability : Method: OECD Test Guideline 301C
Remarks:
According to the results of tests of biodegradability this product is not readily biodegradable.**Bioaccumulative potential**

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Product:

Bioaccumulation : No data available

Partition coefficient: n-
octanol/water : No data available**Ingredients:****guanidine hydrochloride :**Partition coefficient: n-
octanol/water : log Pow: ca. -1.7 (20 °C)**Mobility in soil**

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**Waste from residues : Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and
national regulations.Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**IATA-DGR**UN/ID No. : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : III
Labels : 8**IMDG-Code**UN number : 2790
Proper shipping name : ACETIC ACID, SOLUTION
Class : 8
Packing group : III
Labels : 8
EmS Code : ,
Marine pollutant : no**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

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No data available

Domestic regulation**49 CFR**

UN/ID/NA number : 2790
Proper shipping name : Acetic acid solution
Class : 8
Packing group : III
Labels : 8
ERG Code : 153
Marine pollutant : no

Special precautions for user :

For personal protection see section 8.

SECTION 15. REGULATORY INFORMATION

TSCA list : Not relevant
Not relevant
OSHA Hazards : Toxic by ingestion
EPCRA - Emergency Planning and Community Right-to-Know

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**US State Regulations****California Prop 65** This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16. OTHER INFORMATION

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is



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designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.