



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/11/2003

Reviewed on 02/11/2003

1 Identification of substance

- **Product details**
- **Trade name:** Buffer BR3
- **Manufacturer/Supplier:**
QIAGEN GmbH, QIAGEN Str. 1, 40724 Hilden, Germany
Tel.: (+49)-2103/29-0
- **Information department:**
QIAGEN Technical Service
QIAGEN Inc., 28159 Avenue Stanford, Valencia, CA 91355, USA
Tel.: 1-800-DNA-PREP (1-800-362-7737)
- **Emergency information:**
Poison Information Center Mainz, Germany
Tel.: +49-6131-19240 / 24 h
- **MSDS-No.:** bBR3/3

2 Composition/Data on components

- **Chemical characterization**
 - **Description:** Liquid (Proprietary Compound Mixture)
 - **Dangerous components:**
- | | |
|----------------------------------|---------|
| 593-84-0 guanidinium thiocyanate | 2.5-10% |
| 64-17-5 ethanol | 2.5-10% |

3 Hazards identification

- **Hazard description:** Not applicable.
- **Information pertaining to particular dangers for man and environment:**
Flammable.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**
Health = 0
Fire = 2
Reactivity = 0
- **WHMIS-ratings (scale 0 - 4)**
Health = 0
Fire = 2
Reactivity = 0

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Immediately call a doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **Protective equipment:** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

CAS No.	Designation of material	%	Type	Value	Unit
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64-17-5 ethanol

ACGIH TLV 1880 mg/m³, 1000 ppmNIOSH REL 1900 mg/m³, 1000 ppmOSHA PEL 1900 mg/m³, 1000 ppm

- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Protection of hands:** Protective gloves
- **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.
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

- **Change in condition**

Melting point/Melting range: Undetermined.**Boiling point/Boiling range:** Undetermined.

- **Flash point:** 21 - 55°C (70 - 131°F)
- **Ignition temperature:** 425°C (797°F)

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- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C (68°F):** 1.064 g/cm³
- **Solubility in / Miscibility with Water:** Fully miscible.
- **pH-value at 20°C (68°F):** 7.5

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Dangerous products of decomposition:** Danger of toxic pyrolysis products.

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

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15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredient is listed.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):** All ingredients are listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity:**
None of the ingredients is listed.
- **Cancerogenity categories**
- **EPA (Environmental Protection Agency)**
None of the ingredients is listed.
- **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.
- **NTP (National Toxicology Program)**
None of the ingredients is listed.
- **TLV (Threshold Limit Value established by ACGIH)**
64-17-5 ethanol A4 2,5-10%
- **MAK (German Maximum Workplace Concentration)**
64-17-5 ethanol 5
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.
- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.
- **Risk phrases:**
Flammable.
- **National regulations:**
- **Technical instructions (air):**
- **Class Share in %**
- **III 2,5-10**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.