QIAGEN

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/08/2005 Reviewed on 11/08/2005

1 Identification of substance

· **Product details**

· **Trade name: Buffer AL**

· **Manufacturer/Supplier:**
QIAGEN GmbH, QIAGEN Str. 1, 40724 Hilden, Germany
Tel.: (+49)-2103/29-0

· **Information department:**
QIAGEN Technical Service
QIAGEN Inc., 27220 Turnberry Lane, 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

2 Composition/Data on components

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

50-01-1 guanidinium chloride	25-50%

3 Hazards identification

· **Hazard description:**
Harmful

· **Information pertaining to particular dangers for man and environment:**
Harmful if swallowed.
Irritating to eyes and skin.

· **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 = 2
Fire = 0
Reactivity = 0

· **WHMIS-ratings (scale 0 - 4)**
Health = 2
Fire = 0
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:**
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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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 to enter sewers/ surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

7 Handling and storage

· **Handling:**
· **Information for safe handling:** Keep receptacles tightly sealed.
· **Information about protection against explosions and fires:** No special measures required.

· **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.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Breathing equipment:** Not required.
· **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:	Colorless
Odor:	Characteristic

· **Change in condition**

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

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

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· **Density at 20°C (68°F):** 1.16 g/cm³

· **Solubility in / Miscibility with Water:** Fully miscible.

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:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

12 Ecological information

· **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it 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:** -
· **Marine pollutant:** No

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· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

15 Regulations

· **Sara**
· **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
· **TSCA (Toxic Substances Control Act):**
· **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)**
None of the ingredients is listed.
· **MAK (German Maximum Workplace Concentration)**
None of the ingredients is listed.
· **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.

· **Hazard symbols:**
Harmful

· **Hazard-determining components of labelling:**
guanidinium chloride

· **Risk phrases:**
Harmful if swallowed.
Irritating to eyes and skin.

· **Safety phrases:**
Keep away from food, drink and animal feedingstuffs.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing.
If swallowed, seek medical advice immediately and show this container or label.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly 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.