

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/23/2008

Reviewed on 05/16/2008

1 Identification of substance

- **Product details**
- **Trade name: Cations Suite**
- **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)
Email: techservice-us@qiagen.com
- **Emergency information:**
Poison Information Center Mainz, Germany
Tel.: +49-6131-19240 / 24 h

2 Composition/Data on components

- **Chemical characterization**
 - **Description:** Suite contains different preparations with the following hazardous substances:
 - **Dangerous components:**
- | | |
|---|----------|
| 10043-52-4 calcium chloride | 25-50% |
| 5970-45-6 Zinkdi(acetat) Dihydrat | 25-50% |
| 12125-02-9 ammonium chloride | 10-25% |
| 7447-41-8 lithium chloride | 10-25% |
| 7733-02-0 zinc sulphate (anhydrous) | 25-50% |
| 6131-99-3 Dimethylarsinic acid sodium salt trihydrate | 0.1-1.0% |
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:**
Toxic
Dangerous for the environment
- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Toxic by inhalation and if swallowed.
Risk of serious damage to eyes.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **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 = 3
Fire = 0
Reactivity = 0
- **WHMIS-ratings (scale 0 - 4)**
Health = 3
Fire = 0
Reactivity = 0

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4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **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:** Call a doctor immediately.

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **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.
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- | CAS No. | Designation of material | % | Type | Value | Unit |
|-------------------------------------|-------------------------|---|------|-------|-------------------|
| 12125-02-9 ammonium chloride | | | | | |
| | REL Short-term value: | | | 20 | mg/m ³ |
| | Long-term value: | | | 10 | mg/m ³ |
| | TLV Short-term value: | | | 20 | mg/m ³ |
| | Long-term value: | | | 10 | mg/m ³ |

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- **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.
- **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 through 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:	Clear
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.
- **Density:** Not determined.
- **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:** No dangerous decomposition products known.

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.
- **Additional toxicological information:**
 The product shows the following dangers according to internally approved calculation methods for preparations:
 Toxic

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Irritant

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12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **General notes:**
 Water danger class 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms

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:** 6.1
- **Identification number:** UN2810
- **Packing group:** II
- **Proper shipping name (technical name):** TOXIC LIQUID, ORGANIC, N.O.S. (sodium cacodylate solution)
- **Label:** 6.1
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** 6.1 Toxic substances
- **Danger code (Kemler):** 6.1
- **UN-Number:** 2810
- **Packaging group:** II
- **Description of goods:** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (sodium cacodylate solution)
- **Maritime transport IMDG:**
- **IMDG Class:** 6.1
- **UN Number:** 2810
- **Label:** 6.1
- **Packaging group:** II
- **Marine pollutant:** No
- **Propper shipping name:** TOXIC LIQUID, ORGANIC, N.O.S. (sodium cacodylate solution)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 6.1
- **UN/ID Number:** 2810
- **Label:** 6.1

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- **Packaging group:** II
- **Propper shipping name:** TOXIC LIQUID, ORGANIC, N.O.S. (sodium cacodylate solution)

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 for females:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.
- **Chemicals known to cause developmental 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:**
Toxic
Dangerous for the environment
- **Hazard-determining components of labelling:**
Zinkdi(acetat) Dihydrat
- **Risk phrases:**
Toxic by inhalation and if swallowed.
Risk of serious damage to eyes.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **Safety phrases:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately.
Avoid release to the environment. Refer to special instructions/Safety data sheets

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- **National regulations:**
- **Water hazard class:** Water danger class 3 (Self-assessment): extremely 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.