

**Solution CD2**Version  
3.0Revision Date:  
06/03/2023Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018**SECTION 1. IDENTIFICATION**

Product name : Solution CD2

**Manufacturer or supplier's details**Company : QIAGEN GmbH  
QIAGEN Str. 1  
D-40724 Hilden

Telephone : +49-(0)2103-29-0

Responsible Department : QIAGEN Inc.  
19300 Germantown Road  
Germantown, MD 20874, USA  
Tel.: 800-426-8157  
<http://support.qiagen.com>E-mail address : [cpc@qiagen.com](mailto:cpc@qiagen.com)  
Responsible/issuing personEmergency telephone : CHEMTREC  
USA & Canada 1-800-424-9300  
CHEMTREC: 1-800-424-9300**Recommended use of the chemical and restrictions on use**

Recommended use : Laboratory chemicals

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Skin irritation : Category 2

Serious eye damage : Category 1

**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.  
H318 Causes serious eye damage.Precautionary Statements : **Prevention:**  
P280 Wear protective gloves/ protective clothing/ eye protection/  
face protection.**Response:**

## Solution CD2

Version  
3.0

Revision Date:  
06/03/2023

Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P362 Take off contaminated clothing and wash before reuse.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

| Chemical name                | CAS-No.   | Concentration (% w/w) |
|------------------------------|-----------|-----------------------|
| aluminumchloride hexahydrate | 7784-13-6 | >= 1 - < 10           |

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

|   |  |
|---|--|
| General advice  | : Move out of dangerous area.<br>Show this material safety data sheet to the doctor in attendance.   |
| If inhaled  | : If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.<br>If symptoms persist, call a physician.  |
| In case of eye contact                                      | : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.<br>In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>Remove contact lenses.<br>Protect unharmed eye. |
| If swallowed  | : If accidentally swallowed obtain immediate medical attention.<br>Rinse mouth with water.<br>Never give anything by mouth to an unconscious person.   |
| Most important symptoms and effects, both acute and delayed | : No information available.<br>Causes skin irritation.<br>Causes serious eye damage.   |
| 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.<br>Exposure to decomposition products may be a hazard to health. |
| Hazardous combustion products         | : Carbon oxides<br>Nitrogen oxides (NOx)   |

## Solution CD2

Version  
3.0

Revision Date:  
06/03/2023

Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018

Further information : In the event of fire and/or explosion do not breathe fumes.  
Special protective equipment : Wear self-contained breathing apparatus for firefighting if  
for fire-fighters necessary.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

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 : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : 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.  
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.

Further information on storage stability : No decomposition if stored and applied as directed.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components                   | CAS-No.   | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|------------------------------|-----------|----------------------------------|---|-----------|
| aluminumchloride hexahydrate | 7784-13-6 | TWA                              | 2 mg/m <sup>3</sup><br>(Aluminum)                 | OSHA P0   |
|                              |           | TWA                              | 2 mg/m <sup>3</sup><br>(Aluminum)                 | NIOSH REL |

#### Personal protective equipment

Hand protection

Material : Protective gloves

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

## Solution CD2

 Version  
 3.0

 Revision Date:  
 06/03/2023

 Date of last issue: 04/03/2023  
 Date of first issue: 05/09/2018

|                          |   |   |
|--------------------------|---|---|
| Eye protection           | : | given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).<br>Tightly fitting safety goggles<br>Wear face-shield and protective suit for abnormal processing problems.<br>Do not wear contact lenses.<br>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.<br>acid-resistant protective clothing<br>Footwear protecting against chemicals   |
| Hygiene measures         | : | Keep away from food and drink.<br>Wash hands before breaks and at the end of workday.<br>Ensure adequate ventilation, especially in confined areas.<br>Avoid contact with the skin and the eyes.<br>When using do not eat, drink or smoke.  |

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |                   |
|--|---|-------------------|
| Appearance                                       | : | liquid            |
| Color  | : | No data available |
| Odor   | : | No data available |
| Odor Threshold                                   | : | No data available |
| pH   | : | No data available |
| Melting point/range                              | : | No data available |
| Boiling point/boiling range                      | : | No data available |
| Flash point                                      | : | No data available |
| Evaporation rate                                 | : | No data available |
| Burning rate                                     | : | No data available |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure                                   | : | No data available |
| Relative vapor density                           | : | No data available |
| Relative density                                 | : | No data available |
| Density  | : | No data available |
| Solubility(ies)                                  | : |                   |

**Solution CD2**Version  
3.0Revision Date:  
06/03/2023Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018

|  |   |                   |
|--|---|-------------------|
| Water solubility                       | : | No data available |
| Solubility in other solvents           | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Autoignition temperature               | : | No data available |
| Decomposition temperature              | : | 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.<br>Hazardous decomposition products formed under fire conditions.<br>Keep away from oxidizing agents, and acidic or alkaline products. |
| Conditions to avoid                | : | No data available   |
| Incompatible materials             | : | No data available   |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.   |

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

**Product:**

|                           |   |                            |
|---------------------------|---|----------------------------|
| Acute oral toxicity       | : | Remarks: No data available |
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity     | : | Remarks: No data available |

**Components:****aluminumchloride hexahydrate:**

|                           |   |                              |
|---------------------------|---|------------------------------|
| Acute oral toxicity       | : | LD50 Oral (Rat): 3,311 mg/kg |
| Acute inhalation toxicity | : | Remarks: No data available   |
| Acute dermal toxicity     | : | Remarks: No data available   |

**Solution CD2**Version  
3.0Revision Date:  
06/03/2023Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018**Skin corrosion/irritation**

| Causes skin irritation.

**Product:**

| Remarks : May irritate skin.

**Serious eye damage/eye irritation**

| Causes serious eye damage.

**Product:**

| Remarks : May cause irreversible eye damage.

**Respiratory or skin sensitization****Skin sensitization**

| Not classified based on available information.

**Respiratory sensitization**

| Not classified based on available information.

**Product:**

| Remarks : No data available

**Germ cell mutagenicity**

| Not classified based on available information.

**Carcinogenicity**

| Not classified based on available information.

**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.**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.**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.**Reproductive toxicity**

| Not classified based on available information.

**STOT-single exposure**

| Not classified based on available information.

**STOT-repeated exposure**

| Not classified based on available information.

**Aspiration toxicity**

| Not classified based on available information.

**Further information****Product:**

| Remarks : No data available

**Solution CD2**Version  
3.0Revision Date:  
06/03/2023Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

|                                  |   |                            |
|----------------------------------|---|----------------------------|
| Toxicity to fish                 | : | Remarks: No data available |
| Toxicity to algae/aquatic plants | : | Remarks: No data available |
| Toxicity to microorganisms       | : | Remarks: No data available |

**Components:****aluminumchloride hexahydrate:**

|   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50 (Fish): 27.1 mg/l<br>Exposure time: 96 h                       |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 27.3 mg/l<br>Exposure time: 48 h |

**Persistence and degradability**

No data available

**Bioaccumulative potential****Product:**

|                 |   |                            |
|-----------------|---|----------------------------|
| Bioaccumulation | : | Remarks: No data available |
|-----------------|---|----------------------------|

**Mobility in soil**

No data available

**Other adverse effects****Product:**

|                                   |   |   |
|-----------------------------------|---|---|
| Ozone-Depletion Potential         | : | Regulation: 40 CFR Protection of Environment; Part 82<br>Protection of Stratospheric Ozone - CAA Section 602 Class I<br>Substances<br>Remarks: This product neither contains, nor was<br>manufactured with a Class I or Class II ODS as defined by the<br>U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +<br>B). |
| Additional ecological information | : | No data available   |

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

|                     |   |   |
|---------------------|---|---|
| Waste from residues | : | Send to a licensed waste management company.<br>Dispose of as hazardous waste in compliance with local and<br>national regulations. |
|---------------------|---|---|

## Solution CD2

Version  
3.0

Revision Date:  
06/03/2023

Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018

Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

Not regulated as a dangerous good

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### Domestic regulation

#### Special precautions for user

Remarks : 49CFR: no dangerous good in non-bulk packaging

### SECTION 15. REGULATORY INFORMATION

#### CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Skin corrosion or irritation  
Serious eye damage or eye irritation

**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.

#### California List of Hazardous Substances

|                              |           |
|------------------------------|-----------|
| ammonium acetate             | 631-61-8  |
| aluminumchloride hexahydrate | 7784-13-6 |

#### California Permissible Exposure Limits for Chemical Contaminants

|                              |           |
|------------------------------|-----------|
| aluminumchloride hexahydrate | 7784-13-6 |
|------------------------------|-----------|

#### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.



**Solution CD2**Version  
3.0Revision Date:  
06/03/2023Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

|                 |   |   |
|-----------------|---|---|
| NIOSH REL       | : | USA. NIOSH Recommended Exposure Limits  |
| OSHA P0         | : | USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)                        |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA P0 / TWA   | : | 8-hour time weighted average  |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

SDS Number : 600000009672

Revision Date : 06/03/2023

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



## Solution CD2

Version  
3.0

Revision Date:  
06/03/2023

Date of last issue: 04/03/2023  
Date of first issue: 05/09/2018

---

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.

US / Z8