Section 1. Identification

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name: CO2 Filter Kit with 1/4 in Connections, Part Number CP17982

Part no. (chemical kit): CP17982

Part no.: Gas Clean Filter CO2 CP17969
          Gas Clean Filter Moisture CP17971

Validation date: 9/25/2018

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses: Reagents and Standards for Analytical Chemistry Laboratory Use
              Gas Clean Filter CO2 1 x 200 ml
              Gas Clean Filter Moisture 1 x 200 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer: Agilent Technologies, Inc.
                      5301 Stevens Creek Blvd
                      Santa Clara, CA 95051, USA
                      800-227-9770

1.4 Emergency telephone number

In case of emergency: CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product’s directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

OSHA/HCS status: Gas Clean Filter CO2
                  Gas Clean Filter Moisture

Classification of the substance or mixture

Gas Clean Filter CO2
H290 CORROSIVE TO METALS - Category 1
H314 SKIN CORROSION - Category 1
H318 SERIOUS EYE DAMAGE - Category 1
H402 AQUATIC HAZARD (ACUTE) - Category 3
H412 AQUATIC HAZARD (LONG-TERM) - Category 3

Gas Clean Filter Moisture
H350 CARCINOGENICITY - Category 1A
H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1

Date of issue: 09/25/2018
## Section 2. Hazards identification

<table>
<thead>
<tr>
<th>Ingredients of unknown toxicity</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity:</td>
<td>&gt; 60%</td>
<td>&gt; 60%</td>
</tr>
<tr>
<td>Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity:</td>
<td>&gt; 60%</td>
<td>&gt; 60%</td>
</tr>
<tr>
<td>Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity:</td>
<td>&gt; 60%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### 2.2 GHS label elements

#### Hazard pictograms

- **Gas Clean Filter CO2**
- **Gas Clean Filter Moisture**

#### Signal word

- **Gas Clean Filter CO2**: Danger
- **Gas Clean Filter Moisture**: Danger

#### Hazard statements

- **Gas Clean Filter CO2**
  - H290 - May be corrosive to metals.
  - H314 - Causes severe skin burns and eye damage.
  - H412 - Harmful to aquatic life with long lasting effects.
- **Gas Clean Filter Moisture**
  - H350 - May cause cancer.
  - H372 - Causes damage to organs through prolonged or repeated exposure. (lungs)

#### Precautionary statements

**Prevention**

- **Gas Clean Filter CO2**
  - P280 - Wear protective gloves. Wear eye or face protection: Recommended: Tightly-fitting goggles. Wear protective clothing.
  - P234 - Keep only in original container.
  - P273 - Avoid release to the environment.
  - P264 - Wash hands thoroughly after handling.
- **Gas Clean Filter Moisture**
  - P201 - Obtain special instructions before use.
  - P202 - Do not handle until all safety precautions have been read and understood.
  - P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
  - P260 - Do not breathe dust.
  - P270 - Do not eat, drink or smoke when using this product.
  - P264 - Wash hands thoroughly after handling.

**Response**

- **Gas Clean Filter CO2**
  - P390 - Absorb spillage to prevent material damage.
  - P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
  - P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
  - P303 + P361 + P353 + P363 + P310 - IF ON SKIN

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Section 2. Hazards identification

(or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.

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 or physician.

Gas Clean Filter Moisture
P314 - Get medical attention if you feel unwell.
P308 + P313 - IF exposed or concerned: Get medical attention.

Storage:
Gas Clean Filter CO2
P405 - Store locked up.
P406 - Store in a corrosion resistant container with a resistant inner liner.

Gas Clean Filter Moisture
P405 - Store locked up.

Disposal:
Gas Clean Filter CO2
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Gas Clean Filter Moisture
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
Gas Clean Filter CO2
Do not taste or swallow. Wash thoroughly after handling.

Gas Clean Filter Moisture
None known.

2.3 Other hazards
Hazards not otherwise classified:
Gas Clean Filter CO2
Causes digestive tract burns.

Gas Clean Filter Moisture
None known.

Section 3. Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product’s directions for use it may present potential health and safety hazards.

Substance/mixture:
Gas Clean Filter CO2
Gas Clean Filter Moisture
Mixture (encapsulated in article)

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium dihydroxide</td>
<td>≥75 - ≤90</td>
<td>1305-62-0</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>≤5</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crystalline silica, respirable powder</td>
<td>≤10</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>cristobalite</td>
<td>≤10</td>
<td>14464-46-1</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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Section 4. First aid measures

4.1 Description of necessary first aid measures

**Eye contact**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.</td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
</tbody>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.</td>
</tr>
</tbody>
</table>
Section 4. First aid measures

**Ingestion**

Gas Clean Filter CO2

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Gas Clean Filter Moisture

**4.2 Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact**

- Gas Clean Filter CO2: Causes serious eye damage.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

**Inhalation**

- Gas Clean Filter CO2: No known significant effects or critical hazards.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

**Skin contact**

- Gas Clean Filter CO2: Causes severe burns.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

**Ingestion**

- Gas Clean Filter CO2: Corrosive to the digestive tract. Causes burns.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**

- Gas Clean Filter CO2: Adverse symptoms may include the following: pain, watering, redness.
- Gas Clean Filter Moisture: No specific data.

**Inhalation**

- Gas Clean Filter CO2: No specific data.
- Gas Clean Filter Moisture: No specific data.

**Skin contact**

- Gas Clean Filter CO2: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
- Gas Clean Filter Moisture: No specific data.

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Section 4. First aid measures

**Ingestion**

- **Gas Clean Filter CO2**
  - Adverse symptoms may include the following:
    - stomach pains

- **Gas Clean Filter Moisture**
  - No specific data.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**

- **Gas Clean Filter CO2**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

- **Gas Clean Filter Moisture**
  - Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**

- **Gas Clean Filter CO2**
  - No specific treatment.

- **Gas Clean Filter Moisture**
  - No specific treatment.

**Protection of first-aiders**

- **Gas Clean Filter CO2**
  - No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

- **Gas Clean Filter Moisture**
  - No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

Section 5. Fire-fighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media**

- **Gas Clean Filter CO2**
  - Use an extinguishing agent suitable for the surrounding fire.

- **Gas Clean Filter Moisture**
  - Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

- **Gas Clean Filter CO2**
  - None known.

- **Gas Clean Filter Moisture**
  - None known.

**5.2 Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical**

- **Gas Clean Filter CO2**
  - This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. No specific fire or explosion hazard.

- **Gas Clean Filter Moisture**
  - Decomposition products may include the following materials:
    - metal oxide/oxides

**Hazardous thermal decomposition products**

- **Gas Clean Filter CO2**
  - Decomposition products may include the following materials:
    - metal oxide/oxides

- **Gas Clean Filter Moisture**
  - Decomposition products may include the following materials:
    - metal oxide/oxides
Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters: Gas Clean Filter CO2
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Gas Clean Filter Moisture
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:

Gas Clean Filter CO2
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Gas Clean Filter Moisture
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Gas Clean Filter CO2
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Gas Clean Filter Moisture
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

Gas Clean Filter CO2
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Gas Clean Filter Moisture

6.2 Environmental precautions:

Gas Clean Filter CO2
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Gas Clean Filter Moisture
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers,
Section 6. Accidental release measures

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Gas Clean Filter CO2
Move containers from spill area. Absorb spillage to prevent material damage. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Methods for cleaning up: Gas Clean Filter Moisture
Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures: Gas Clean Filter CO2
Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

Protective measures: Gas Clean Filter Moisture
Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Gas Clean Filter CO2
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Advice on general occupational hygiene: Gas Clean Filter Moisture
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Gas Clean Filter CO2

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Store in corrosion resistant container with a resistant inner liner. Store locked up. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Gas Clean Filter Moisture

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

- Gas Clean Filter CO2
  - Industrial applications, Professional applications.

- Gas Clean Filter Moisture
  - Industrial applications, Professional applications.

Industrial sector specific solutions

- Gas Clean Filter CO2
  - Not applicable.

- Gas Clean Filter Moisture
  - Not applicable.

Section 8. Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>C: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>CEIL: 2 mg/m³</td>
</tr>
</tbody>
</table>

Date of issue: 09/25/2018
## Section 8. Exposure controls/personal protection

| Gas Clean Filter Moisture | crystalline silica, respirable powder |

| Cristobalite |  |

### 8.2 Exposure controls

#### Appropriate engineering controls

User operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures
Section 8. Exposure controls/personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state**: Gas Clean Filter CO2 Solid. [Granular solid.]
Gas Clean Filter Moisture Solid. [Granular solid.]

**Color**: Gas Clean Filter CO2 White. Violet.
Gas Clean Filter Moisture Tan.

**Odor**: Gas Clean Filter CO2 Characteristic.
Gas Clean Filter Moisture Not available.

**Odor threshold**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Not available.

**pH**: Gas Clean Filter CO2 >12 [Conc. (% w/w): 0.14%]
Gas Clean Filter Moisture Not available.

**Melting point**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Not available.

**Boiling point**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Not available.

**Flash point**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Closed cup: >535°C (>995°F)

**Evaporation rate**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Not available.

**Flammability (solid, gas)**: Gas Clean Filter CO2 Not available.
Gas Clean Filter Moisture Not available.
Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Vapor pressure
- Gas Clean Filter CO2: 2.3 kPa (17.25 mm Hg) [room temperature]
- Gas Clean Filter Moisture: Not available.

Vapor density
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Relative density
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Solubility
- Gas Clean Filter CO2: Insoluble in the following materials: cold water and hot water.
- Gas Clean Filter Moisture: Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Auto-ignition temperature
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Decomposition temperature
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Viscosity
- Gas Clean Filter CO2: Not available.
- Gas Clean Filter Moisture: Not available.

Section 10. Stability and reactivity

10.1 Reactivity
- Gas Clean Filter CO2: No specific test data related to reactivity available for this product or its ingredients.
- Gas Clean Filter Moisture: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
- Gas Clean Filter CO2: The product is stable.
- Gas Clean Filter Moisture: The product is stable.

10.3 Possibility of hazardous reactions
- Gas Clean Filter CO2: Under normal conditions of storage and use, hazardous reactions will not occur.
- Gas Clean Filter Moisture: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
- Gas Clean Filter CO2: No specific data.
- Gas Clean Filter Moisture: No specific data.

10.5 Incompatible materials
- Gas Clean Filter CO2: Reactive or incompatible with the following materials: metals.
- Gas Clean Filter Moisture: May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products
- Gas Clean Filter CO2: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Gas Clean Filter Moisture: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Date of issue: 09/25/2018
Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium dihydroxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7340 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1350 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium dihydroxide</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 50 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5 minutes 1 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>-</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
</tr>
<tr>
<td>crystalline silica, respirable powder cristobalite</td>
<td>-</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
</tr>
</tbody>
</table>

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Category 1</td>
<td>Inhalation</td>
<td>lungs</td>
</tr>
<tr>
<td>crystalline silica, respirable powder cristobalite</td>
<td></td>
<td></td>
<td>lungs</td>
</tr>
</tbody>
</table>

Aspiration hazard

Not available.

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## Section 11. Toxicological information

### Information on the likely routes of exposure
- **Gas Clean Filter CO2**
- **Gas Clean Filter Moisture**

### Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>Causes serious eye damage.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>Causes severe burns.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Corrosive to the digestive tract. Causes burns.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>Adverse symptoms may include the following: pain, watering, redness</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>Adverse symptoms may include the following: pain or irritation, redness, blistering may occur</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Adverse symptoms may include the following: stomach pains</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
<th>Potential delayed effects</th>
<th>Not available.</th>
</tr>
</thead>
</table>

#### Long term exposure

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
<th>Potential delayed effects</th>
<th>Not available.</th>
</tr>
</thead>
</table>

#### Potential chronic health effects

<table>
<thead>
<tr>
<th>General</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>May cause cancer. Risk of cancer depends on duration and level of exposure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mutagenicity</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teratogenicity</th>
<th>Gas Clean Filter CO2</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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Developmental effects:
- Gas Clean Filter CO2: No known significant effects or critical hazards.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

Fertility effects:
- Gas Clean Filter CO2: No known significant effects or critical hazards.
- Gas Clean Filter Moisture: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>45000 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td>Acute LC50 33884.4 µg/l Fresh water</td>
<td>Fish - Clarias gariepinus - Fingerling</td>
<td>96 hours</td>
</tr>
<tr>
<td>Calcium dihydroxide</td>
<td>Acute LC50 125 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td></td>
<td></td>
<td>Readily</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil

| Soil/water partition coefficient (KOC) | Not available. |

12.5 Other adverse effects
No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods:
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304
Composition/information on ingredients
No products were found.

SARA 304 RQ : Not applicable.
SARA 311/312

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## Section 15. Regulatory information

### Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
</table>
| Gas Clean Filter CO2 | CORROSIVE TO METALS - Category 1  
SERIOUS EYE DAMAGE - Category 1  
HNOc - Corrosive to digestive tract  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1 |
| Gas Clean Filter Moisture | CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) (inhalation) - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) (inhalation) - Category 1 |

### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Calcium dihydroxide | ≥75 - ≤90 | SKIN CORROSION - Category 1B  
SERIOUS EYE DAMAGE - Category 1  
CORROSIVE TO METALS - Category 1  
ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION - Category 1A  
SERIOUS EYE DAMAGE - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
HNOc - Corrosive to digestive tract |
| Sodium hydroxide | ≤5 | CORROSIVE TO METALS - Category 1A  
ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION - Category 1A  
SERIOUS EYE DAMAGE - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
HNOc - Corrosive to digestive tract |
| Crystalline silica, respirable powder | ≤10 | CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) (inhalation) - Category 1 |
| Cristobalite | ≤10 | CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) (inhalation) - Category 1 |

### State regulations

- **Massachusetts**: The following components are listed: CALCIUM HYDROXIDE; SODIUM HYDROXIDE; CRISTOBALITE DUST; SILICA, CRYSTALLINE, QUARTZ
- **New York**: The following components are listed: Sodium hydroxide
- **New Jersey**: The following components are listed: CALCIUM HYDROXIDE; HYDRATED LIME; SODIUM HYDROXIDE; CAUSTIC SODA; SILICA, CRISTOBALITE; CRISTOBALITE (SiO2); SILICA, QUARTZ, QUARTZ (SiO2)
- **Pennsylvania**: The following components are listed: CALCIUM HYDROXIDE; SODIUM HYDROXIDE; CRISTOBALITE DUST; CRISTOBALITE; QUARTZ DUST; QUARTZ

**California Prop. 65**

**WARNING**: This product can expose you to chemicals including Silica, crystalline, Silica, crystalline, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silica, crystalline</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silica, crystalline</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### International regulations

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol (Annexes A, B, C, E)**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

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Section 15. Regulatory information

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list
Australia: All components are listed or exempted.
Canada: Not determined.
China: All components are listed or exempted.
Europe: All components are listed or exempted.
Japan: Japan inventory (ENCS): All components are listed or exempted.
            Japan inventory (ISHL): All components are listed or exempted.
Malaysia: All components are listed or exempted.
New Zealand: All components are listed or exempted.
Philippines: Not determined.
Republic of Korea: Not determined.
Taiwan: All components are listed or exempted.
Thailand: Not determined.
Turkey: Not determined.
United States: All components are listed or exempted.
Viet Nam: Not determined.

Section 16. Other information

History
Date of issue: 09/25/2018
Date of previous issue: 05/31/2017
Version: 4

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter CO2</td>
<td></td>
</tr>
<tr>
<td>CORROSIVE TO METALS - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN CORROSION - Category 1</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE - Category 1</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td></td>
</tr>
<tr>
<td>CARCINOGENICITY - Category 1A</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.

Notice to reader
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