

SAFETY DATA SHEET



CO2 Filter Kit with 1/8 in Connections, Part Number CP17983

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 1/8 in Connections, Part Number CP17983
Part no. (chemical kit) : CP17983
Part no. : Gas Clean Filter CO2 CP17969
 Gas Clean Filter Moisture CP17971
Validation date : 1/25/2024

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

Identified uses : Analytical chemistry.
 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 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Gas Clean Filter Moisture This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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
 H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 H412 AQUATIC HAZARD (LONG-TERM) - Category 3

Gas Clean Filter Moisture
 H350 CARCINOGENICITY - Category 1A
 H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
 Gas Clean Filter Moisture Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 100%

Section 2. Hazards identification

2.2 GHS label elements

Hazard pictograms

: Gas Clean Filter CO2



Gas Clean Filter Moisture



Signal word

: Gas Clean Filter CO2
Gas Clean Filter Moisture

Danger
Danger

Hazard statements

: Gas Clean Filter CO2

H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
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.

Precautionary statements

Prevention

: Gas Clean Filter CO2

P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection: Recommended: Tightly-fitting goggles.
P234 - Keep only in original packaging.
P273 - Avoid release to the environment.
P261 - Avoid breathing dust.

Gas Clean Filter Moisture

P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P260 - Do not breathe dust.
P270 - Do not eat, drink or smoke when using this product.

Response

: Gas Clean Filter CO2

P390 - Absorb spillage to prevent material damage.
P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
P363 - Wash contaminated clothing before reuse.
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 doctor.

Gas Clean Filter Moisture

P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage

: Gas Clean Filter CO2

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Gas Clean Filter Moisture

Not applicable.

Disposal

:

Section 2. Hazards identification

	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 severe 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	Mixture (encapsulated in article)
	Gas Clean Filter Moisture	Mixture (encapsulated in article)

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

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 and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: Gas Clean Filter CO2	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.
	Gas Clean Filter Moisture	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.

Section 4. First aid measures

Inhalation

: Gas Clean Filter CO2

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.

Gas Clean Filter Moisture

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.

Skin contact

: Gas Clean Filter CO2

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.

Gas Clean Filter Moisture

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.

Ingestion

:  Gas Clean Filter CO2

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. If material has been swallowed and the exposed person is conscious, give small quantities

Gas Clean Filter Moisture

Section 4. First aid measures

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Causes serious eye damage. No known significant effects or critical hazards.
Inhalation	: Gas Clean Filter CO2 Gas Clean Filter Moisture	May cause respiratory irritation. No known significant effects or critical hazards.
Skin contact	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Causes severe burns. No known significant effects or critical hazards.
Ingestion	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Severely corrosive to the digestive tract. Causes severe burns. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Adverse symptoms may include the following: pain watering redness No specific data.
Inhalation	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Adverse symptoms may include the following: respiratory tract irritation coughing No specific data.
Skin contact	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Adverse symptoms may include the following: pain or irritation redness blistering may occur No specific data.
Ingestion	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Adverse symptoms may include the following: stomach pains No specific data.

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

Notes to physician	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No specific treatment. No specific treatment.

Section 4. First aid measures

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
Gas Clean Filter Moisture

None known.
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

Hazardous thermal decomposition products : Gas Clean Filter CO2

Decomposition products may include the following materials:

Gas Clean Filter Moisture

metal oxide/oxides

Decomposition products may include the following materials:

metal oxide/oxides

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.

Section 5. Fire-fighting measures

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, waterways, soil or air).

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.

Gas Clean Filter Moisture

Move containers from spill area. Avoid dust

Section 6. Accidental release measures

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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

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

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. 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.

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 (see Section 10) and food and drink. Store in a 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

Section 7. Handling and storage

Gas Clean Filter Moisture

10 for incompatible materials before handling or use.

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 (see Section 10) and food and drink. 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 Gas Clean Filter Moisture	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.

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

Ingredient name	Exposure limits
Gas Clean Filter CO2 Calcium dihydroxide	ACGIH TLV (United States, 1/2023). TWA: 5 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 5 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours.
Sodium hydroxide	ACGIH TLV (United States, 1/2023). C: 2 mg/m ³ OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³ NIOSH REL (United States, 10/2020). CEIL: 2 mg/m ³ OSHA PEL (United States, 5/2018). TWA: 2 mg/m ³ 8 hours. CAL OSHA PEL (United States, 5/2018). C: 2 mg/m ³
Gas Clean Filter Moisture crystalline silica, respirable powder	CAL OSHA PEL (United States, 5/2018). TWA: 0.05 mg/m ³ 8 hours. OSHA PEL Z3 (United States, 6/2016).

Section 8. Exposure controls/personal protection

<p>crystalite</p>	<p>TWA: 250 mppcf / (%SiO₂+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO₂+2) 8 hours. Form: Respirable OSHA PEL 1989 (United States, 3/1989). TWA: 0.1 mg/m³, (as quartz) 8 hours. Form: Respirable dust OSHA PEL (United States, 5/2018). [Silica, crystalline] TWA: 50 µg/m³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 1/2023). [Silica, crystalline] TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2020). [SILICA, CRYSTALLINE] TWA: 0.05 mg/m³ 10 hours. Form: respirable dust OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / 2 x (%SiO₂+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / 2 x (%SiO₂+2) 8 hours. Form: Respirable TWA: 30 mg/m³ / 2 x (%SiO₂+2) 8 hours. Form: Total dust OSHA PEL 1989 (United States, 3/1989). TWA: 0.05 mg/m³, (as quartz) 8 hours. Form: Respirable dust OSHA PEL (United States, 5/2018). [Silica, crystalline] TWA: 50 µg/m³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 1/2023). [Silica, crystalline] TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2020). [SILICA, CRYSTALLINE] TWA: 0.05 mg/m³ 10 hours. Form: respirable dust CAL OSHA PEL (United States, 5/2018). TWA: 0.05 mg/m³ 8 hours. Form: respirable dust</p>
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Biological exposure indices

No exposure indices known.

8.2 Exposure controls

Appropriate engineering controls

- : Use only with adequate ventilation. If 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.

Section 8. Exposure controls/personal protection

- 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**
- 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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Solid. [Granular solid.] Solid. [Granular solid.]
Color	: Gas Clean Filter CO2 Gas Clean Filter Moisture	White. Violet. Tan.
Odor	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Characteristic. Not available.
Odor threshold	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.
pH	: Gas Clean Filter CO2 Gas Clean Filter Moisture	>12 [Conc. (% w/w): 0.14%] Not available.
Melting point/freezing point	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.
Boiling point, initial boiling point, and boiling range	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.

Section 9. Physical and chemical properties and safety characteristics

Flash point	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Closed cup: >535°C (>995°F)
Evaporation rate	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.
Flammability	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.
Lower and upper explosion limit/flammability limit	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Not applicable.
Vapor pressure	: <input checked="" type="checkbox"/> Gas Clean Filter CO2	2.3 kPa (17.25 mm Hg)
Relative vapor density	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Not applicable.
Relative density	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.

Solubility(ies)	: Media	Result
	<input checked="" type="checkbox"/> Gas Clean Filter CO2 water	Insoluble
	Gas Clean Filter Moisture water	Soluble

Partition coefficient: n-octanol/water	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Not applicable.
Auto-ignition temperature	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Not applicable.
Decomposition temperature	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.
Viscosity	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not applicable. Not applicable.
Particle characteristics		
Median particle size	: <input checked="" type="checkbox"/> Gas Clean Filter CO2 Gas Clean Filter Moisture	Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Gas Clean Filter CO2 Gas Clean Filter Moisture	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No specific data. No specific data.
10.5 Incompatible materials	: Gas Clean Filter CO2 Gas Clean Filter Moisture	Reactive or incompatible with the following materials: metals May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

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.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Gas Clean Filter CO2 Calcium dihydroxide	LC50 Inhalation Dusts and mists	Rat - Male, Female	>6.04 mg/l	4 hours
	LD50 Oral	Rat	7340 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Gas Clean Filter CO2 Calcium dihydroxide Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Gas Clean Filter Moisture crystalline silica, respirable powder	+	1	Known to be a human carcinogen.
crystalite	+	1	Known to be a human carcinogen.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Gas Clean Filter CO2 Calcium dihydroxide	Category 3	-	Respiratory tract irritation
Sodium hydroxide	Category 3	-	Respiratory tract irritation

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Gas Clean Filter Moisture crystalline silica, respirable powder cristobalite	Category 1 Category 1	inhalation inhalation	lungs lungs

Aspiration hazard

Not available.

Information on the likely routes of exposure : Gas Clean Filter CO2 Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Gas Clean Filter Moisture Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

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 May cause respiratory irritation.
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 Severely corrosive to the digestive tract. Causes severe burns.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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 Adverse symptoms may include the following:
respiratory tract irritation
coughing
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.

Ingestion : Gas Clean Filter CO2 Adverse symptoms may include the following:
stomach pains
Gas Clean Filter Moisture No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Potential chronic health effects

General	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No known significant effects or critical hazards. Causes damage to organs through prolonged or repeated exposure.
Carcinogenicity	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No known significant effects or critical hazards. May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: Gas Clean Filter CO2 Gas Clean Filter Moisture	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Gas Clean Filter CO2 Calcium dihydroxide	7340	N/A	N/A	N/A	N/A

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Gas Clean Filter CO2 Calcium dihydroxide	Acute EC50 184.57 mg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours
	Acute LC50 33884.4 µg/l Fresh water	Fish - <i>Clarias gariepinus</i> - Fingerling	96 hours
Sodium hydroxide	Acute EC50 40.38 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Gas Clean Filter CO2 Sodium hydroxide	-	-	Readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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.

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 IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Water Act (CWA) 311: Sodium hydroxide

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

Section 15. Regulatory information

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

Classification :  Gas Clean Filter CO2


Gas Clean Filter Moisture

CORROSIVE TO METALS - Category 1
SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
HNOC - Corrosive to digestive tract [severe]
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1


Composition/information on ingredients


Name	%	Classification
Gas Clean Filter CO2 Calcium dihydroxide	≥75 - ≤90	SKIN CORROSION - Category 1 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 1 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 [severe]
Gas Clean Filter Moisture crystalline silica, respirable powder	≤10	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
crystalite	≤10	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

State regulations


Massachusetts :  The following components are listed: CALCIUM HYDROXIDE; SILICA, CRYSTALLINE, QUARTZ; CRISTOBALITE DUST; SODIUM HYDROXIDE

New York : The following components are listed: Sodium hydroxide

New Jersey :  The following components are listed: CALCIUM HYDROXIDE; SILICA, QUARTZ; SILICA, CRISTOBALITE; SODIUM HYDROXIDE

Pennsylvania :  The following components are listed: CALCIUM HYDROXIDE; QUARTZ DUST; CRISTOBALITE DUST; SODIUM HYDROXIDE

California Prop. 65

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

Ingredient name	No significant risk level	Maximum acceptable dosage level
Gas Clean Filter Moisture Silica, crystalline	-	-
Silica, crystalline	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Section 15. Regulatory information

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

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	: <input checked="" type="checkbox"/> All components are listed or exempted.
China	: All components are listed or exempted.
Japan	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: <input checked="" type="checkbox"/> All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Gas Clean Filter CO2 CORROSIVE TO METALS - Category 1 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	Expert judgment On basis of test data On basis of test data Calculation method Calculation method
Gas Clean Filter Moisture CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method Calculation method

History

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Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

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