

SAFETY DATA SHEET



Gas Clean Filter Kit for TCD, Part Number CP738408

SECTION 1: Identification of the substance/mixture and of the company/undertaking

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 : Gas Clean Filter Kit for TCD, Part Number CP738408

Part no. (chemical kit) : CP738408

Part no. : Gas Clean Filter Oxygen CP17970
Gas Clean Filter Moisture CP17971

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

Material uses : ☒ Analytical chemistry.

Gas Clean Filter Oxygen 1 x 200 ml

Gas Clean Filter Moisture 1 x 200 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

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

Product definition : ☒ Gas Clean Filter Oxygen Mixture (encapsulated in article)
Gas Clean Filter Moisture Mixture (encapsulated in article)

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

☒ Gas Clean Filter

Moisture

H373

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Category 2

Ingredients of unknown toxicity : ☒ Gas Clean Filter Moisture Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: > 60%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: > 60%

Ingredients of unknown ecotoxicity : ☒ Gas Clean Filter Moisture Contains 100% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

: Gas Clean Filter Moisture



Signal word

: Gas Clean Filter Oxygen No signal word.
Gas Clean Filter Moisture Warning

Hazard statements

: Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Gas Clean Filter Oxygen P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.
Gas Clean Filter Moisture P260 - Do not breathe dust.

Response

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture P314 - Get medical advice/attention if you feel unwell.

Storage

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture Not applicable.

Disposal

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture - crystalline silica, respirable powder
- cristobalite

Supplemental label elements

: Gas Clean Filter Oxygen Contains nickel monoxide. May produce an allergic reaction.
Safety data sheet available on request.
Gas Clean Filter Moisture Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture Not applicable.

Special packaging requirements

Tactile warning of danger

: Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: Gas Clean Filter Oxygen This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Gas Clean Filter Moisture This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: Gas Clean Filter Oxygen None known.
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.

3.1 Substances : Gas Clean Filter Oxygen Mixture (encapsulated in article)
Gas Clean Filter Moisture Mixture (encapsulated in article)

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Gas Clean Filter Oxygen				
aluminium oxide	EC: 215-691-6 CAS: 1344-28-1	≥75 - ≤90	Not classified.	[2]
Copper oxide, Activated	EC: 215-269-1 CAS: 1317-38-0 Index: 029-016-00-6	≤10	Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=1)	[1] [2]
Manganese dioxide	EC: 215-202-6 CAS: 1313-13-9 Index: 025-001-00-3	≤10	Acute Tox. 4, H302 Acute Tox. 4, H332	[1] [2]
Gas Clean Filter Moisture				
crystalline silica, respirable powder	EC: 238-878-4 CAS: 14808-60-7	<10	STOT RE 1, H372 (lungs) (inhalation)	[1] [2]
cristobalite	EC: 238-455-4 CAS: 14464-46-1	<10	STOT RE 1, H372 (lungs) (inhalation) See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type




- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures


Eye contact	: Gas Clean Filter Oxygen	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	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 following exposure or if feeling unwell.
Inhalation	: Gas Clean Filter Oxygen	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	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 following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a

SECTION 4: First aid measures

Skin contact	:  Gas Clean Filter Oxygen	collar, tie, belt or waistband. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Gas Clean Filter Moisture	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:  Gas Clean Filter Oxygen	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Gas Clean Filter Moisture	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. Get medical attention following exposure or if feeling unwell. 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.
Protection of first-aiders	:  Gas Clean Filter Oxygen	No action shall be taken involving any personal risk or without suitable training.
	Gas Clean Filter Moisture	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
Inhalation	:  Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
Skin contact	: Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.
Ingestion	: Gas Clean Filter Oxygen	No known significant effects or critical hazards.
	Gas Clean Filter Moisture	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
Inhalation	: Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
Skin contact	: Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.
Ingestion	: Gas Clean Filter Oxygen	No specific data.
	Gas Clean Filter Moisture	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Gas Clean Filter Oxygen	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.


Gas Clean Filter Kit for TCD, Part Number CP738408**SECTION 4: First aid measures**

Specific treatments	: Gas Clean Filter Oxygen	No specific treatment.
	: Gas Clean Filter Moisture	No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	: Gas Clean Filter Oxygen	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 Oxygen	None known.
	: Gas Clean Filter Moisture	None known.


5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:  Gas Clean Filter Oxygen	No specific fire or explosion hazard.
	: Gas Clean Filter Moisture	No specific fire or explosion hazard.
Hazardous combustion products	: Gas Clean Filter Oxygen	Decomposition products may include the following materials: metal oxide/oxides
	: Gas Clean Filter Moisture	Decomposition products may include the following materials: metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	: Gas Clean Filter Oxygen	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 Oxygen	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	: 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**


For non-emergency personnel	:  Gas Clean Filter Oxygen	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 spilt material. 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 spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

For emergency responders


- : Gas Clean Filter Oxygen If specialised 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 If specialised 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".

6.2 Environmental precautions

- :  Gas Clean Filter Oxygen Avoid dispersal of spilt 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).
- Gas Clean Filter Moisture Avoid dispersal of spilt 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 material for containment and cleaning up

Methods for cleaning up

- :  Gas Clean Filter Oxygen Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
- 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.


6.4 Reference to other sections

- : See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

- :  Gas Clean Filter Oxygen Put on appropriate personal protective equipment (see Section 8).
- Gas Clean Filter Moisture Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. 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 Oxygen 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.
- 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.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

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


Product/ingredient name	Exposure limit values
Gas Clean Filter Oxygen aluminium oxide	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m³ 8 hours. Form: inhalable dust TWA: 4 mg/m³ 8 hours. Form: respirable dust
Copper oxide, Activated	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 2 mg/m³, (as Cu) 15 minutes. Form: Dusts and Mists TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dusts and Mists
Manganese dioxide	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 0.2 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.05 mg/m³, (as Mn) 8 hours. Form: Respirable fraction
Gas Clean Filter Moisture crystalline silica, respirable powder	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction
cristobalite	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace
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SECTION 8: Exposure controls/personal protection

atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
 Gas Clean Filter Oxygen Manganese dioxide	DNEL	Long term Dermal	0.0021 mg/kg bw/day	General population Workers	Systemic
	DNEL	Long term Dermal	0.00414 mg/kg bw/day		Systemic
	DNEL	Long term Inhalation	0.043 mg/m ³	General population Workers	Systemic
	DNEL	Long term Inhalation	0.2 mg/m ³		Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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: safety glasses with side-shields.

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.

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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties**Appearance**

Physical state	Gas Clean Filter Oxygen	Solid. [Granular solid.]
	Gas Clean Filter Moisture	Solid. [Granular solid.]
Colour	Gas Clean Filter Oxygen	Brown. [Dark]
	Gas Clean Filter Moisture	Tan.
Odour	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Odour threshold	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Melting point/freezing point	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Initial boiling point and boiling range	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Flammability (solid, gas)	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Upper/lower flammability or explosive limits	Gas Clean Filter Oxygen	Not applicable.
	Gas Clean Filter Moisture	Not applicable.
Flash point	Gas Clean Filter Oxygen	Not applicable.
	Gas Clean Filter Moisture	Closed cup: >535°C (>995°F)
Auto-ignition temperature	Gas Clean Filter Oxygen	Not applicable.
	Gas Clean Filter Moisture	Not applicable.
Decomposition temperature	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
pH	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Viscosity	Gas Clean Filter Oxygen	Not applicable.
	Gas Clean Filter Moisture	Not applicable.
Solubility(ies)	Gas Clean Filter Oxygen	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 Oxygen	Not applicable.
	Gas Clean Filter Moisture	Not applicable.
Vapour pressure	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Evaporation rate	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Relative density	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Vapour density	Gas Clean Filter Oxygen	Not applicable.
	Gas Clean Filter Moisture	Not applicable.
Explosive properties	Slightly explosive in the presence of the following materials or conditions: oxidising materials and reducing materials.	
Oxidising properties	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.
Particle characteristics		
Median particle size	Gas Clean Filter Oxygen	Not available.
	Gas Clean Filter Moisture	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : Gas Clean Filter Oxygen 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 Oxygen The product is stable.
Gas Clean Filter Moisture The product is stable.
- 10.3 Possibility of hazardous reactions** : Gas Clean Filter Oxygen 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 Oxygen No specific data.
Gas Clean Filter Moisture No specific data.
- 10.5 Incompatible materials** : Gas Clean Filter Oxygen May react or be incompatible with oxidising materials.
Gas Clean Filter Moisture May react or be incompatible with oxidising materials.
- 10.6 Hazardous decomposition products** : Gas Clean Filter Oxygen 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 Oxygen	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
Copper oxide, Activated	LD50 Oral	Rat	470 mg/kg	-
Manganese dioxide	LD50 Oral	Rat	3478 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Gas Clean Filter Oxygen	500	N/A	N/A	N/A	1.5
Manganese dioxide					

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Skin : Gas Clean Filter Oxygen: May cause sensitisation by skin contact.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity


Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Gas Clean Filter Kit for TCD, Part Number CP738408**SECTION 11: Toxicological information**

Not available.

Specific target organ toxicity (repeated exposure)


Product/ingredient 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 likely routes of exposure : Gas Clean Filter Oxygen Routes of entry anticipated: Oral, Dermal, Inhalation.
Gas Clean Filter Moisture Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation :  Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Ingestion : Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Skin contact : Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Eye contact : Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Gas Clean Filter Oxygen No specific data.
Gas Clean Filter Moisture No specific data.

Ingestion : Gas Clean Filter Oxygen No specific data.
Gas Clean Filter Moisture No specific data.

Skin contact : Gas Clean Filter Oxygen No specific data.
Gas Clean Filter Moisture No specific data.

Eye contact : Gas Clean Filter Oxygen No specific data.
Gas Clean Filter Moisture No specific data.

Delayed and immediate effects as well as 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.


Potential chronic health effects

General : Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity :  Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Mutagenicity : Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Reproductive toxicity :  Gas Clean Filter Oxygen No known significant effects or critical hazards.
Gas Clean Filter Moisture No known significant effects or critical hazards.

Other information :  Gas Clean Filter Oxygen Adverse symptoms may include the following: May cause skin sensitisation.
Gas Clean Filter Moisture Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Gas Clean Filter Oxygen	Acute LC50 2.6 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Copper oxide, Activated	Acute LC50 >56000 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
Manganese dioxide	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC >100 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 10 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	8 days

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soilSoil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

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.

	ADR/RID	IMDG	IATA
14.1 UN number	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxide, Activated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxide, Activated)	Environmentally hazardous substance, solid, n.o.s. (Copper oxide, Activated)
14.3 Transport hazard class(es)			
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.

Additional information**ADR/RID**

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Hazard identification number 90

Limited quantity 5 kg

Special provisions 274, 335, 601, 375

Tunnel code (-)

IMDG

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

Special provisions 274, 335, 966, 967, 969

IATA

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Quantity limitation Passenger and Cargo Aircraft: 400 kg. Packaging instructions: 956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y956.

Special provisions A97, A158, A179, A197, A215

14.6 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.

14.7 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****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**


None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Ingredient name	EC number	CAS number	Restriction
 Gas Clean Filter Oxygen nickel monoxide	215-215-7	1313-99-1	28

Label :  Gas Clean Filter Oxygen Not applicable.
Gas Clean Filter Moisture Not applicable.

Other EU regulations**Ozone depleting substances (1005/2009/EU)**

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.


Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
 Gas Clean Filter Moisture Quartz (SiO ₂)	UK Occupational Exposure Limits EH40 - WEL	silica, respirable crystalline respirable fraction	Carc.	-
cristobalite	UK Occupational Exposure Limits EH40 - WEL	silica, respirable crystalline respirable fraction	Carc.	-

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

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** : Not determined.**China** : All components are listed or exempted.

Gas Clean Filter Kit for TCD, Part Number CP738408**SECTION 15: Regulatory information**

Europe	: 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	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	:  All components are listed or exempted.
Turkey	: Not determined.
United States	:  All components are active or exempted.
Viet Nam	: Not determined.


15.2 Chemical safety assessment	: This product contains substances for which Chemical Safety Assessments might still be required.
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SECTION 16: Other information


 Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
 Gas Clean Filter Moisture STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

 Gas Clean Filter Oxygen H302 H332 H400 H410 Gas Clean Filter Moisture H372 H373	Harmful if swallowed. Harmful if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Causes damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure.
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Full text of classifications [CLP/GHS]

 Gas Clean Filter Oxygen Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Gas Clean Filter Moisture STOT RE 1 STOT RE 2	ACUTE TOXICITY - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
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SECTION 16: Other information

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Notice to reader

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