SAFETY DATA SHEET
Gas Clean Filter FID Kit 1/8 in, Part Number CP736530

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 FID Kit 1/8 in, Part Number CP736530
- **Part no. (chemical kit)**: Gas Clean Filter Hydrocarbon (CP736530)
- **Part no.**: CP736530
- **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**: Reagents and Standards for Analytical Chemistry Laboratory Use
- Gas Clean Filter Oxygen: 1 x 200 ml
- Gas Clean Filter Moisture: 1 x 200 ml
- Gas Clean Filter Hydrocarbon: 2 x 200 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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**: Mono-constituent substance (encapsulated in article)
- Gas Clean Filter Hydrocarbon
- Gas Clean Filter Oxygen
- Gas Clean Filter Moisture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**
- **Gas Clean Filter Oxygen**
  - H332: ACUTE TOXICITY (inhalation) - Category 4
  - H350: CARCINOGENICITY - Category 1A
  - H400: SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
  - H411: LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

- **Gas Clean Filter Moisture**
  - H373: SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

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**SECTION 2: Hazards identification**

**Ingredients of unknown toxicity**
- Gas Clean Filter Oxygen
- Gas Clean Filter Moisture

**Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity:** > 60%
**Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity:** > 60%
**Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity:** > 60%
**Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity:** > 60%

**Ingredients of unknown ecotoxicity**
- Gas Clean Filter Moisture

**Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment:** 100%

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

**Hazard pictograms**
- Gas Clean Filter Oxygen
- Gas Clean Filter Moisture

**Signal word**
- Gas Clean Filter Oxygen: No signal word.
- Gas Clean Filter Hydrocarbon: Warning
- Gas Clean Filter Moisture: Warning

**Hazard statements**
- Gas Clean Filter Oxygen: H332 - Harmful if inhaled.
  H350 - May cause cancer.
  H400 - Very toxic to aquatic life.
  H411 - Toxic to aquatic life with long lasting effects.
- 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. Wear protective clothing. Wear eye or face protection.
  P273 - Avoid release to the environment.
- Gas Clean Filter Moisture: P260 - Do not breathe dust.

**Response**
- Gas Clean Filter Oxygen: P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- Gas Clean Filter Moisture: P314 - Get medical attention if you feel unwell.

**Storage**
- Gas Clean Filter Oxygen: P405 - Store locked up.
- Gas Clean Filter Moisture: Not applicable.
SECTION 2: Hazards identification

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

Hazardous ingredients:
- Gas Clean Filter Hydrocarbon
  - manganese dioxide
  - nickel monoxide
- Gas Clean Filter Oxygen
  - crystalline silica, respirable powder
  - cristobalite
- Gas Clean Filter Moisture
  - None known.

Supplemental label elements:
- Gas Clean Filter Hydrocarbon
  - Not applicable.
- Gas Clean Filter Oxygen
  - Not applicable.
- 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 Hydrocarbon
  - Not applicable.
- Gas Clean Filter Oxygen
  - Restricted to professional users.
- Gas Clean Filter Moisture
  - Not applicable.

Other hazards:
- Gas Clean Filter Hydrocarbon
  - Not applicable.
- Gas Clean Filter Oxygen
  - May form explosible dust-air mixture if dispersed.
- 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 Hydrocarbon
  - Mono-constituent substance (encapsulated in article)
- Gas Clean Filter Oxygen
  - Mixture (encapsulated in article)
- Gas Clean Filter Moisture
  - Mixture (encapsulated in article)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Hydrocarbon carbon</td>
<td>EC: 231-153-3</td>
<td>100</td>
<td>Not classified.</td>
<td>[A]</td>
</tr>
<tr>
<td></td>
<td>CAS: 7440-44-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 1344-28-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper oxide, Activated</td>
<td>EC: 215-269-1</td>
<td>≤10</td>
<td>Aquatic Acute 1, H400 (M=100)</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>CAS: 1317-38-0</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 029-016-00-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>EC: 215-202-6</td>
<td>≤10</td>
<td>Acute Tox. 4, H302</td>
<td>[1][2]</td>
</tr>
<tr>
<td></td>
<td>CAS: 1313-13-9</td>
<td></td>
<td>Acute Tox. 4, H332</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 025-001-00-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nickel monoxide</td>
<td>EC: 215-215-7</td>
<td>&lt;1</td>
<td>Skin Sens. 1, H317</td>
<td>[1][2]</td>
</tr>
</tbody>
</table>

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SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Gas Clean Filter Moisture</th>
<th>CAS: 1313-99-1</th>
<th>Carc. 1A, H350i (inhalation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>crystalline silica, respirable powder</td>
<td>Index: 028-003-00-2</td>
<td>STOT RE 1, H372</td>
</tr>
<tr>
<td>cristobalite</td>
<td>CAS: 14808-60-7</td>
<td>Aquatic Chronic 4, H413</td>
</tr>
<tr>
<td>EC: 238-878-4</td>
<td>STOT RE 1, H372 (inhalation)</td>
<td></td>
</tr>
<tr>
<td>CAS: 14808-60-7</td>
<td>STOT RE 1, H372 (inhalation)</td>
<td></td>
</tr>
<tr>
<td>CAS: 14646-46-1</td>
<td>See Section 16 for the full text of the H statements declared above.</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Substance classified with a health or environmental hazard</td>
</tr>
<tr>
<td>[2] Substance with a workplace exposure limit</td>
</tr>
<tr>
<td>[5] Substance of equivalent concern</td>
</tr>
<tr>
<td>[6] Additional disclosure due to company policy</td>
</tr>
<tr>
<td>[*] Substance</td>
</tr>
<tr>
<td>[A] Constituent</td>
</tr>
<tr>
<td>[B] Impurity</td>
</tr>
<tr>
<td>[C] Stabilising additive</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Gas Clean Filter Oxygen</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhilation</td>
<td>Gas Clean Filter Hydrocarbon</td>
<td>Gas Clean Filter Oxygen</td>
<td>Gas Clean Filter Moisture</td>
</tr>
</tbody>
</table>

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Gas Clean Filter Oxygen

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. Get medical attention. If necessary, call a poison center or physician. 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-
SECTION 4: First aid measures

Skin contact

Gas Clean Filter Hydrocarbon
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Gas Clean Filter Oxygen
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.

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 Hydrocarbon
Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Gas Clean Filter Oxygen
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
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 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 Hydrocarbon
No action shall be taken involving any personal risk or without suitable training.

Gas Clean Filter Oxygen
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...
**SECTION 4: First aid measures**

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

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Gas Clean Filter Hydrocarbon</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>Gas Clean Filter Oxygen</td>
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<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Gas Clean Filter Hydrocarbon</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Over-exposure signs/symptoms**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>redness</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>respiratory tract irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>coughing</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gas Clean Filter Oxygen</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Gas Clean Filter Moisture</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**4.3 Indication of any immediate medical attention and special treatment needed**

**Notes to physician**

<table>
<thead>
<tr>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
</tbody>
</table>

**Specific treatments**

<table>
<thead>
<tr>
<th>Gas Clean Filter Hydrocarbon</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>
SECTION 5: Firefighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Unsuitable extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td>Gas Clean Filter Hydrocarbon</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>Gas Clean Filter Oxygen</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Gas Clean Filter Moisture</td>
</tr>
</tbody>
</table>

Use dry chemical powder.

Use an extinguishing agent suitable for the surrounding fire.

Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

None known.

May form explosible dust-air mixture if dispersed.

This material is very toxic to aquatic life. This material is toxic 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.

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>Decomposition products may include the following materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td>carbon dioxide</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>carbon monoxide</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>metal oxide/oxides</td>
</tr>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td></td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td></td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td></td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

<table>
<thead>
<tr>
<th>Special precautions for fire-fighters</th>
<th>Special protective equipment for fire-fighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td>Gas Clean Filter Hydrocarbon</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>Gas Clean Filter Oxygen</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Gas Clean Filter Moisture</td>
</tr>
</tbody>
</table>

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. 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. 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.

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.

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 5: Firefighting measures

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 Hydrocarbon**: 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders:
- **Gas Clean Filter Hydrocarbon**: 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.

6.2 Environmental precautions:
- **Gas Clean Filter Hydrocarbon**: 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:
- **Gas Clean Filter Hydrocarbon**: 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".

Date of issue/Date of revision: 25/09/2018
Gas Clean Filter FID Kit 1/8 in, Part Number CP736530

SECTION 6: Accidental release measures

Methods for cleaning up:

- **Gas Clean Filter Hydrocarbon**
  Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

- **Gas Clean Filter Oxygen**
  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. 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 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 Hydrocarbon**
  Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

- **Gas Clean Filter Oxygen**
  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. 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.

- **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 Hydrocarbon**
  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 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.
SECTION 7: Handling and storage

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

**Storage**

- **Gas Clean Filter Hydrocarbon**
  - Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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 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. 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 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.

**Seveso Directive - Reporting thresholds (in tonnes)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Notification and MAPP threshold</th>
<th>Safety report threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Clean Filter Oxygen</strong></td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>E1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.3 Specific end use(s)

**Recommendations**

- **Gas Clean Filter Hydrocarbon**
  - Industrial applications, Professional applications.
- **Gas Clean Filter Oxygen**
  - Industrial applications, Professional applications.
- **Gas Clean Filter Moisture**
  - Industrial applications, Professional applications.

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SECTION 7: Handling and storage

<table>
<thead>
<tr>
<th>Industrial sector specific solutions</th>
<th>Gas Clean Filter FID Kit 1/8 in, Part Number CP736530</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: inhalable dust</td>
</tr>
<tr>
<td>aluminium oxide</td>
<td></td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 0.5 mg/m³, (as Mn) 8 hours.</td>
</tr>
<tr>
<td>TWA: 0.5 mg/m³, (as Ni) 8 hours.</td>
<td></td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 0.1 mg/m³ 8 hours. Form: respirable dust</td>
</tr>
<tr>
<td>crystalline silica, respirable powder</td>
<td></td>
</tr>
<tr>
<td>cristobalite</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 0.1 mg/m³ 8 hours. Form: respirable dust</td>
</tr>
</tbody>
</table>

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 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

No DNELs/DMELs available.

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.

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SECTION 8: Exposure controls/personal protection

**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

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

### Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Hydrocarbon</th>
<th>Oxygen</th>
<th>Moisture</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Colour</th>
<th>Hydrocarbon</th>
<th>Oxygen</th>
<th>Moisture</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Odour</th>
<th>Hydrocarbon</th>
<th>Oxygen</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Clean Filter</strong></td>
<td>None</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odour threshold</th>
<th>Hydrocarbon</th>
<th>Oxygen</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Clean Filter</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
### Gas Clean Filter FID Kit 1/8 in, Part Number CP736530

**SECTION 9: Physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Gas Clean Filter Hydrocarbon</th>
<th>Gas Clean Filter Oxygen</th>
<th>Gas Clean Filter Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>3652°C</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Closed cup: &gt;535°C</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Hydrocarbon</th>
<th>Oxygen</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relative density</strong></td>
<td>1.9 to 2.2 [Water = 1]</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Insoluble in the following materials: cold water and hot water.</td>
<td>Insoluble in the following materials: cold water and hot water.</td>
<td>Insoluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>452°C</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### 9.2 Other information
No additional information.
SECTION 10: Stability and reactivity

10.1 Reactivity: Gas Clean Filter Hydrocarbon
No specific test data related to reactivity available for this product or its ingredients.
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 Hydrocarbon
The product is stable.
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 Hydrocarbon
Under normal conditions of storage and use, hazardous reactions will not occur.
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 Hydrocarbon
Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.

10.5 Incompatible materials: Gas Clean Filter Hydrocarbon
Reactive or incompatible with the following materials:
oxidizing 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 Hydrocarbon
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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

<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 Oxygen</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>470 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Copper oxide, Activated</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3478 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>LC50 Inhalation Duffs and mists</td>
<td>Rat - Male, Female</td>
<td>&gt;5.08 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>nickel monoxide</td>
<td>LD50 Oral</td>
<td>Rat - Female</td>
<td>9990 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5814 mg/kg</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>3.166 mg/l</td>
</tr>
</tbody>
</table>

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SECTION 11: Toxicological information

Irritation/Corrosion

Conclusion/Summary: Not available.

Sensitiser

Conclusion/Summary: Not available.

Skin

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)

Not available.

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nickel monoxide</td>
<td>Category 1</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>crystalline silica, respirable powder</td>
<td>Category 1</td>
<td>Inhalation</td>
<td>lungs</td>
</tr>
<tr>
<td>cristobalite</td>
<td>Category 1</td>
<td>Inhalation</td>
<td>lungs</td>
</tr>
</tbody>
</table>

Aspiration hazard

Not available.

Information on likely routes of exposure:

Gas Clean Filter Hydrocarbon

Gas Clean Filter Oxygen

Gas Clean Filter Moisture

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation

Gas Clean Filter Hydrocarbon

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Harmful if inhaled.

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 Hydrocarbon

No known significant effects or critical hazards.

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 Hydrocarbon

No known significant effects or critical hazards.

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 Hydrocarbon

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

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

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SECTION 11: Toxicological information

Inhalation

Gas Clean Filter Hydrocarbon
Adverse symptoms may include the following:
respiratory tract irritation

coughing

Gas Clean Filter Oxygen
No specific data.

Gas Clean Filter Moisture
No specific data.

Ingestion

Gas Clean Filter Hydrocarbon
No specific data.

Gas Clean Filter Oxygen
No specific data.

Gas Clean Filter Moisture
No specific data.

Skin contact

Gas Clean Filter Hydrocarbon
No specific data.

Gas Clean Filter Oxygen
No specific data.

Gas Clean Filter Moisture
No specific data.

Eye contact

Gas Clean Filter Hydrocarbon
Adverse symptoms may include the following:
irritation
redness

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 Hydrocarbon
Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

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 Hydrocarbon
No known significant effects or critical hazards.

Gas Clean Filter Oxygen
May cause cancer. Risk of cancer depends on duration and level of exposure.

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

Mutagenicity

Gas Clean Filter Hydrocarbon
No known significant effects or critical hazards.

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

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

Teratogenicity

Gas Clean Filter Hydrocarbon
No known significant effects or critical hazards.

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

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

Developmental effects

Gas Clean Filter Hydrocarbon
No known significant effects or critical hazards.

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

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

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SECTION 11: Toxicological information

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

SECTION 12: Ecological information

12.1 Toxicty

<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 Hydrocarbon</td>
<td>Acute LC50 1000 mg/l Fresh water</td>
<td>Fish - Danio rerio</td>
<td>96 hours</td>
</tr>
<tr>
<td>Gas Clean Filter Oxygen Copper oxide, Activated</td>
<td>Acute LC50 2.6 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>Acute LC50 &gt;56000 ppm Fresh water EC50 &gt;100 mg/l Fresh water</td>
<td>Fish - Gambusia affinis - Adult Algae - Desmodesmus subspicatus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 &gt;100 mg/l NOEC &gt;100 mg/l</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen nickel monoxide</td>
<td>-</td>
<td>5613</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

<table>
<thead>
<tr>
<th>Soil/water partition coefficient (K_{OC})</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>:</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment

<table>
<thead>
<tr>
<th>PBT</th>
<th>vPvB</th>
</tr>
</thead>
<tbody>
<tr>
<td>: Not applicable.</td>
<td>: Not applicable.</td>
</tr>
</tbody>
</table>

12.6 Other adverse effects: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product:
  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.

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SECTION 13: Disposal considerations

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 spilled 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: Not regulated.

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 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

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Category</th>
<th>Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen</td>
<td>E1</td>
<td>Restricted to professional users.</td>
</tr>
<tr>
<td>Gas Clean Filter Moisture</td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Gas Clean Filter Hydrocarbon</td>
<td></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Other EU regulations

Ozone depleting substances (1005/2009/EU)
Not listed.

Prior Informed Consent (PIC) (649/2012/EU)
Not listed.

Seveso Directive
This product is controlled under the Seveso Directive.

Danger criteria

Category
Gas Clean Filter Oxygen E1

National regulations

Date of issue/Date of revision: 25/09/2018
SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>List name</th>
<th>Name on list</th>
<th>Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Clean Filter Oxygen nickel monoxide</td>
<td>UK Occupational Exposure Limits EH40 - WEL</td>
<td>inorganic nickel compounds Insoluble in water Except nickel carbonyl</td>
<td>Carc.</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.

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

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
</tbody>
</table>
| 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.               |

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments might still be required.

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]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Date of issue/Date of revision : 25/09/2018
Gas Clean Filter FID Kit 1/8 in, Part Number CP736530

SECTION 16: Other information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Clean Filter Oxygen</strong></td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4, H332</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Carc. 1A, H350</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>Calculation method</td>
</tr>
<tr>
<td><strong>Gas Clean Filter Moisture</strong></td>
<td></td>
</tr>
<tr>
<td>STOT RE 2, H373</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

**Gas Clean Filter Oxygen**
- H302: Harmful if swallowed.
- H317: May cause an allergic skin reaction.
- H332: Harmful if inhaled.
- H350: May cause cancer.
- H350i (inhalation): May cause cancer by inhalation.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H411: Toxic to aquatic life with long lasting effects.
- H413: May cause long lasting harmful effects to aquatic life.

**Gas Clean Filter Moisture**
- H372 (inhalation): Causes damage to organs through prolonged or repeated exposure if inhaled.
- H373: May cause damage to organs through prolonged or repeated exposure.

Full text of classifications [CLP/GHS]

**Gas Clean Filter Oxygen**
- Acute Tox. 4, H302: ACUTE TOXICITY (oral) - Category 4
- Acute Tox. 4, H332: ACUTE TOXICITY (inhalation) - Category 4
- Aquatic Acute 1, H400: SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
- Aquatic Chronic 1, H410: LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
- Aquatic Chronic 2, H411: LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
- Aquatic Chronic 4, H413: LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
- Carc. 1A, H350: CARCINOGENICITY - Category 1A
- Carc. 1A, H350i (inhalation): CARCINOGENICITY (inhalation) - Category 1A
- Skin Sens. 1, H317: SKIN SENSITISATION - Category 1
- STOT RE 1, H372: SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

**Gas Clean Filter Moisture**
- STOT RE 1, H372 (inhalation): SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 1
- STOT RE 2, H373: SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Date of issue/Date of revision : 25/09/2018
Date of previous issue : 27/04/2017
Version : 2

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