Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Ireland

SAFETY DATA SHEET



AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC

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 | : AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC |
|--------------|---|
| Part no. | : CP17901-AC |

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

| Material uses | 1 | Analytical chemistry. |
|---------------|---|-------------------------------|
| | | A kit containing: 1 x CP17973 |

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 : pdl-msds_author@agilent.com responsible for this SDS

1.4 Emergency telephone number

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

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 th | e substance or mixture | |
| Product definition | : Mixture (encapsulated in article) | |
| Classification accord | ing to Regulation (EC) No. 1272/2008 [CLP/GHS] | |
| H332 | ACUTE TOXICITY (inhalation) | Category 4 |
| H350 | CARCINOGENICITY | Category 1A |
| H373 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | Category 2 |
| H400 | SHORT-TERM (ACUTE) AQUATIC HAZARD | Category 1 |
| H411 | LONG-TERM (CHRONIC) AQUATIC HAZARD | Category 2 |
| Ingredients of unknow toxicity | Percentage of the mixture consisting of ingredient(s 1 - 10% Percentage of the mixture consisting of ingredient(s toxicity: > 60% Percentage of the mixture consisting of ingredient(s 10% | s) of unknown acute inhalation |
| Ingredients of unknow ecotoxicity | wn : Contains 1% of components with unknown hazards | s to the aquatic environment |
| See Section 16 for the | full text of the H statements declared above. | |
| Soo Soction 11 for mo | re detailed information on health offects and symptoms | |

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

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Ireland

AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC

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SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms



| Signal word | Danger |
|---|---|
| Hazard statements | H332 - Harmful if inhaled. H350 - May cause cancer. H373 - May cause damage to organs through prolonged or repeated exposure. H410 - Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | |
| Prevention | P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P273 - Avoid release to the environment. P260 - Do not breathe dust. |
| Response | P391 - Collect spillage. |
| Storage | Not applicable. |
| Disposal | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Hazardous ingredients | - manganese dioxide - crystalline silica, respirable powder - nickel monoxide |
| Supplemental label elements | Contains nickel monoxide. May produce an allergic reaction. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | Restricted to professional users. |
| Special packaging require | <u>ients</u> |
| Tactile warning of danger | Not applicable. |
| 2.3 Other hazards | |
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | 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 | 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 : Mixture (encapsulated in article)

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
|---------------------------------------|--|-----------|--|---------|
| aluminium oxide | EC: 215-691-6 CAS: 1344-28-1 | ≥50 - ≤75 | Not classified. | [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] |
| 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] |
| crystalline silica, respirable powder | EC: 238-878-4 CAS: 14808-60-7 | ≤3 | STOT RE 1, H372 (lungs) (inhalation) | [1] [2] |
| nickel monoxide | EC: 215-215-7 CAS: 1313-99-1 Index: 028-003-00-2 | <1 | Skin Sens. 1, H317 Carc. 1A, H350i STOT RE 1, H372 Aquatic Chronic 4, H413 | [1] [2] |
| | | | See Section 16 for the full text of the H statements declared above. | |

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.

Туре

[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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

| Eye contact | 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. |
|--------------|--|
| Inhalation | 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. |
| Skin contact | 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. |

SECTION 4: First aid measures

| Ingestion | : | 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. 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 | : | 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. |

4.2 Most important symptoms and effects, both acute and delayed

| Potential acute health | <u>effects</u> | |
|------------------------------|---|--|
| Eye contact | : No known significant effects or critical hazards. | |
| Inhalation | : Harmful if inhaled. | |
| Skin contact | : No known significant effects or critical hazards. | |
| Ingestion | : No known significant effects or critical hazards. | |
| Over-exposure signs/symptoms | | |
| _ | | |

| Eye contact | : No specific data. |
|--------------|---------------------|
| Inhalation | : No specific data. |
| Skin contact | : No specific data. |
| Ingestion | : No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed

| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|---------------------|---|
| Specific treatments | : No specific treatment. |

SECTION 5: Firefighting measures

| 5.1 Extinguishing media | |
|--|--|
| Suitable extinguishing media | : Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : None known. |
| 5.2 Special hazards arising | from the substance or mixture |
| Hazards from the substance or mixture | : 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. |
| Hazardous combustion products | : Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides |
| 5.3 Advice for firefighters | |
| Special precautions for fire-fighters | : 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. |

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 : 1
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SECTION 5: Firefighting measures

| Special protective | : Fire-fighters should wear appropriate protective equipment and self-contained |
|---------------------|---|
| equipment for fire- | breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| fighters | 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 | : | 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. |
|--------------------------------|----|---|
| For emergency responders | : | 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 | : | 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
| 6.3 Methods and material for | or | containment and cleaning up |
| Methods for cleaning up | : | 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. |

| 6.4 Reference to other | 1 | See Section 1 for emergency contact information. |
|------------------------|---|---|
| sections | | 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 | 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. |
|--|--|
| Advice on general occupational hygiene | : 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 : | 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. |
|-----------|--|
|-----------|--|

Seveso Directive - Reporting thresholds

SECTION 7: Handling and storage

| Danger criteria | | | | | | | |
|-----------------|---------------------------------|-------------------------|--|--|--|--|--|
| | Notification and MAPP threshold | Safety report threshold | | | | | |
| E1 | 100 tonne | 200 tonne | | | | | |

7.3 Specific end use(s)

- **Recommendations**
- : Industrial applications, Professional applications.

Industrial sector specific : Not available. solutions

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 |
|---------------------------------------|---|
| aluminium oxide | NAOSH (Ireland, 1/2020). |
| | OELV-8hr: 10 mg/m ³ 8 hours. Form: inhalable dust |
| | OELV-8hr: 4 mg/m ³ 8 hours. Form: respirable dust |
| Manganese dioxide | NAOSH (Ireland, 1/2020). |
| | OELV-8hr: 0.2 mg/m ³ , (as Mn) 8 hours. Form: Inhalable fraction OELV-8hr: 0.05 mg/m ³ , (as Mn) 8 hours. Form: respirable fraction |
| crystalline silica, respirable powder | NAOSH (Ireland, 1/2020). |
| | OELV-8hr: 0.1 mg/m ³ 8 hours. Form: respirable dust |
| nickel monoxide | NAOSH (Ireland, 1/2020). |
| | OELV-8hr: 0.5 mg/m³, (as Ni) 8 hours. |

 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

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|-------------------------|------|-------------------------|-----------------------------|-----------------------|----------|
| Manganese dioxide | DNEL | Long term Dermal | 0.0021 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.00414 mg/kg bw/ day | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.043 mg/ m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 0.2 mg/m ³ | Workers | Systemic |
| nickel monoxide | DNEL | Long term Inhalation | 20 ng/m³ | General population | Local |
| | DNEL | Long term Inhalation | 20 ng/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 0.05 mg/m³ | Workers | Local |

SECTION 8: Exposure controls/personal protection

| | - | | | | |
|---|-----|------------------|-----------------------|------------|----------|
| D | NEL | Long term | 0.05 mg/m³ | Workers | Systemic |
| | | Inhalation | | | |
| D | NEL | Short term | 3.9 mg/m ³ | General | Local |
| | | Inhalation | _ | population | |
| D | NEL | Short term | 3.9 mg/m ³ | Workers | Local |
| | | Inhalation | _ | | |
| D | NEL | Short term | 312 mg/m ³ | General | Systemic |
| | | Inhalation | _ | population | - |
| D | NEL | Long term Dermal | 0.012 mg/ | Workers | Local |
| | | 0 | cm² | | |

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 meas | <u>ures</u> |
| 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

| <u>Appoulation</u> | | |
|---|-----------|---|
| Physical state | Solid. [G | Franular solid.] |
| Colour | Black. / | Dark. / Brown. / Tan. |
| Odour | Not avai | lable. |
| Odour threshold | Not avai | lable. |
| Melting point/freezing point | Not avai | lable. |
| Initial boiling point and boiling range | Not avai | lable. |
| Flammability (solid, gas) | Not avai | lable. |
| Upper/lower flammability or explosive limits | Not appl | icable. |
| Flash point | Not appl | icable. |
| Auto-ignition temperature | Not appl | icable. |
| Decomposition temperature | Not avai | lable. |
| рН | Not avai | lable. |
| Viscosity | Not appl | icable. |
| Solubility(ies) | Insoluble | e in the following materials: cold water and hot water. |
| Partition coefficient: n- octanol/water | Not appl | icable. |
| Vapour pressure | Not avai | lable. |
| Evaporation rate | Not avai | lable. |
| Relative density | Not avai | lable. |
| Vapour density | Not appl | icable. |
| Explosive properties | Not avai | lable. |
| Oxidising properties | Not avai | lable. |
| Particle characteristics | | |
| Median particle size | Not avai | lable. |
| | | |

No additional information.

| SECTION 10: Stability and reactivity | | | | | | |
|---|--|--|--|--|--|--|
| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. | | | | | |
| 10.2 Chemical stability | : The product is stable. | | | | | |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. | | | | | |
| 10.4 Conditions to avoid | : No specific data. | | | | | |
| 10.5 Incompatible materials | : May react or be incompatible with oxidising materials. Incompatible with hydrogen fluoride. | | | | | |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Ireland

AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC

SECTION 10: Stability and reactivity

10.6 Hazardous

decomposition products

: 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 |
|-------------------------|--|------------------------------|-------------------------|--------------|
| Manganese dioxide | LD50 Oral | Rat | 3478 mg/kg | - |
| Copper oxide, Activated | LD50 Dermal | Rat - Male, Female | >2000 mg/kg | - |
| nickel monoxide | LD50 Oral LC50 Inhalation Dusts and mists | Rat Rat - Male, Female | 470 mg/kg >5.08 mg/l | - 4 hours |

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | |
|--|------------------|-------------------|--------------------------------|-----------------------------------|-----|
| AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC | | | N/A | N/A | 4.5 |
| Manganese dioxide | 500 | N/A | N/A | N/A | 1.5 |

Irritation/Corrosion

| Conclusion/Summary | : Not available. |
|---------------------------|---------------------------------|
| <u>Sensitiser</u> | |
| Conclusion/Summary | : Not available. |
| Mutagenicity | |
| Conclusion/Summary | : Not available. |
| Carcinogenicity | |
| Conclusion/Summary | : Not available. |
| Reproductive toxicity | |
| Conclusion/Summary | : Not available. |
| Teratogenicity | |
| Conclusion/Summary | : Not available. |
| Specific target organ to: | <u>xicity (single exposure)</u> |
| N 1 () 1 () | |

Not available.

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|---------------|
| crystalline silica, respirable powder | Category 1 | inhalation | lungs |
| nickel monoxide | Category 1 | - | - |

Aspiration hazard

Not available.

Information on likely routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

| - otoritiai aoato iloati | |
|--------------------------|---|
| Inhalation | : Harmful if inhaled. |
| Ingestion | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Eye contact | : No known significant effects or critical hazards. |
| | |

Date of issue/Date of revision

SECTION 11: Toxicological information

| Symptoms related to the physical, chemical and toxicological characteristics | | | | |
|--|---|--|--|--|
| Inhalation | : No specific data. | | | |
| Ingestion | : No specific data. | | | |
| Skin contact | : No specific data. | | | |
| Eye contact | : No specific data. | | | |
| Delayed and immediate e | effects as well as chronic effects from short and long-term exposure | | | |
| <u>Short term exposure</u> | | | | |
| 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 | : May cause damage to organs through prolonged or repeated exposure. | | | |
| Carcinogenicity | : May cause cancer. Risk of cancer depends on duration and level of exposure. | | | |
| Mutagenicity | : No known significant effects or critical hazards. | | | |
| Reproductive toxicity | : No known significant effects or critical hazards. | | | |
| Other information | : Adverse symptoms may include the following: May cause skin sensitisation. | | | |

SECTION 12: Ecological information

12.1 Toxicity

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

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

| F | Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|-------------------------|--------------------|------|-----------|
| r | nickel monoxide | - | 5613 | high |

12.4 Mobility in soil

| Soil/water partition coefficient (Koc) | : Not available. | | |
|---|------------------|--|--|
| Mobility | : Not available. | | |

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

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 met | hods |
|--------------------------|---|
| 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 | ΙΑΤΑ |
|------------------------------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |

Additional information

| 14.6 Special precautions | Transport within user's premises: always transport in closed containers that an | е |
|--------------------------|--|----------|
| for user | upright and secure. Ensure that persons transporting the product know what to do | o in the |
| | event of an accident or spillage. | |

14.7 Transport in bulk : Not available. according to IMO instruments

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 |
|--|-----------|------------|-------------|
| AC 1 Filter Kit, Base, Filter, Fittings, Part Number CP17901-AC | | | 28 |
| nickel monoxide | 215-215-7 | 1313-99-1 | 28 |

Label

: Restricted to professional users.

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.

Danger criteria

Category

E1

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.

| Inve | ntory | list |
|------|-------|------|
| | | |

| Date of issue/Date of revision | : 27/05/2022 Date of previous issue : No previous validation Version : 1 | |
|--------------------------------|--|--|
| New Zealand | : 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. | |
| Europe | : All components are listed or exempted. | |
| China | : All components are listed or exempted. | |
| Canada | : All components are listed or exempted. | |
| Australia | : All components are listed or exempted. | |

SECTION 15: Regulatory information

| : All components are listed or exempted. |
|---|
| : All components are listed or exempted. |
| : All components are listed or exempted. |
| : All components are listed or exempted. |
| : All components are listed or exempted. |
| : All components are active or exempted. |
| : All components are listed or exempted. |
| : 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 | : ATE = Acute Toxicity Estimate |
|-------------------|---|
| acronyms | 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 |

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

| Classification | Justification |
|-------------------------|--------------------|
| Acute Tox. 4, H332 | Calculation method |
| Carc. 1A, H350 | Calculation method |
| STOT RE 2, H373 | Calculation method |
| Aquatic Acute 1, H400 | Calculation method |
| Aquatic Chronic 2, H411 | Calculation method |

Full text of abbreviated H statements

| H302 | Harmful if swallowed. |
|-------|---|
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H350 | May cause cancer. |
| H350i | May cause cancer by inhalation. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause 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. |

Full text of classifications [CLP/GHS]

| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
|--------------------------------|--|
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4 |
| Carc. 1A | CARCINOGENICITY - Category 1A |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| STOT RE 1 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 |
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |
| Date of issue/Date of revision | : 27/05/2022 Date of previous issue : No previous validation Version : 1 13/14 |

SECTION 16: Other information

| Date of issue/ Date of revision | : 27/05/2022 |
|---------------------------------|--------------------------|
| Date of previous issue | : No previous validation |
| Version | : 1 |
| Notice to reader | |

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