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

1.1 Product identifier
   Trade name or designation of the mixture: ENVIROCARB AP3-50
   Registered numbers: 01-2119488894-16-0001, 01-2119488894-16-0002, 01-2119488894-16-0007, 01-2119488894-16-0008
   Synonyms: Steam activated (non-impregnated), 3mm carbon pellets are used principally to adsorb organic contamination from gaseous and liquid media.
   Date Version: 03rd January 2017
   Number Revision: 01
   Date Supersedes: Not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identifier uses: Adsorbent, which includes various uses such as deodorisation, purification and decolourisation of liquid and gas.
   Uses advised against: No other uses are advised

1.3 Details of the supplier of the safety data sheet
   Supplier Name: Brownell Limited
   Address: Unit 2, Abbey Road Industrial Park
            Commercial Way
            Park Royal
            London
            NW10 7XF
   Country: UK
   Telephone: +44 (0) 208 965 9281
   Fax: +44 (0) 208 965 3239
   Email: info@brownell.co.uk
   Contact: Robert Beasley
   Website: www.brownell.co.uk

1.4 Emergency telephone number: +44 (0) 20 8838 8408 – (08:00 – 17:00) office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   This product has no classification under CLP.

Classification according to Regulation (EC) No. 1272/2008 as amended
   This substance does not meet the criteria for classification according to the Regulation (EC) 1272/2008 as amended.
Safety Data Sheet  
According to Regulation (EC) No 1907/2006 (REACH)

Trade Name: Brownell Limited  
Product No: 3mm Activated Carbon Pellets  
Version No: MCS/121 - 01 / EN

Physical hazard Not classified as a physical hazard.  
Human health hazard Not classified as a health hazard.  
Environmental hazard Not classified as an environmental hazard.

Addition information Not applicable

2.2 Label elements  
Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard statements</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Precautionary statements</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Supplemental hazard information</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special rules for supplemental label elements for certain mixtures</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Additional labeling</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

2.3 Other hazards  
Caution – Wet activated carbon removes oxygen from air causing severe hazard to workers inside vessels or enclosed or confined spaces containing activate carbon. Before entering such an area, following the sampling and work procedures for low oxygen levels. Contact with airborne dust may be slightly irritating to eyes and respiratory tract. Observe all local and national regulations.

PBT: This product is not identified as a PBT/vPvB substance

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Activated Carbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No</td>
<td>7440-44-0</td>
</tr>
<tr>
<td>EINECS No</td>
<td>931-328-0</td>
</tr>
<tr>
<td>REACH No</td>
<td>01-2119488894-16-0001, 01-2119488894-16-0002, 01-2119488894-16-0007, 01-2119488894-16-0008</td>
</tr>
</tbody>
</table>

| Purity               | Not Applicable   |
| Synonyms             | Activated Carbon |
| Stabilisers          | Not Applicable   |
| Hazard Impurities    | Not Applicable   |

3.2 Mixtures  
Additional information Not applicable

This mixture does not contain further substances fulfilling the criteria of hazard class “acute toxicity” according.
SECTION 4: First Aid measures

General information
If exposed or concerned, get medical advice/attention. Show this safety data sheet to the doctor in attendance.

4.1 Description of first aid measures

Skin contact
Activated carbon dust may cause slight skin irritation. Washing with soap and water should relieve this irritation.

Eye Contact
Contact between the eye and activated carbon dust may cause irritation. Immediately flush eyes with copious amounts of water for at least 15 minutes.

Ingestion
Ingestion of activated carbon dust may irritate the digestive tract. Rinse out mouth with plenty of water; seek medical attention if symptoms develop or persist.

Inhalation
Inhalation of activated carbon dust maybe of irritation of the throat with a feeling of tightness in the chest. No harmful effects are anticipated but if a problem develops, remove the affected person immediately from the source of exposure to fresh air and give oxygen if required.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact
There may be mild irritation at the site of contact.

Eye Contact
There may be irritation and redness.

Ingestion
No symptoms

Inhalation
There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / Immediate effects
Not applicable

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Not Applicable

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water, water spray, carbon dioxide, polymer foam and dry chemical powder.

Unsuitable extinguishing media
Not applicable and unused material will not burn.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
5.3 Advice for firefighters

Additional information

Special protective equipment for fire-fighters - Full protective clothing must be worn in case of fire and wear self-contained breathing apparatus equipment for surrounding fire.

SECTION 6: Accidental release measure

6.1 Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel

Protective equipment

Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation.

Emergency procedures

Keep unnecessary personnel away.

6.2 Environmental precautions

Do not discharge into drains and rivers.

6.3 Methods and materials for containment and cleaning up

For containment

Contain spillage and transfer into a suitable container for disposal.

For cleaning up

Sweep up carefully to avoid the generation of dust during clean-up and collect in suitable container for disposal. Remove from the spillage location. When disposed, report in accordance with local and national regulations.

6.4 Reference of other sections

Additional information

Not applicable.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Protective measures

Advice on safe handling

Wear appropriate personal protective equipment. Do not breathe dust from this material, avoid creating any dust and direct contact with skin and eyes as this may cause irritation when handling substance.

Fire preventions

Smoking is forbidden around the substances.

Aerosol and dust generation preventions

Avoid the formation or spread of airborne dusts to a minimum. Provide sufficient ventilation at places where dust is formed.

Environment precautions

No special environmental precautions required.

Advice on general occupational hygiene

Observe good industrial hygiene practices.
7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Store in a cool, well-ventilated area. Keep away from sources of ignition. Keep container tightly closed. Avoid incompatible materials and conditions of strong oxidising agents.

Packaging materials
Keep all material in an air-tight container, must only be kept in original packaging and material is hygroscopic.

Requirements for storage rooms and vessels
All containers must be kept in a dry, cool place. Store in a well-ventilated place.

Hints on storage assembly:
Storage class
Not Available
Materials to avoid
Not Applicable

7.3 Specific end uses
Recommendations
Not applicable
Specific end uses
The specified uses for this material are shown in section 1 (1.2) of the document.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

8.1.1 Occupational exposure limits:
UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>EINECS No</th>
<th>CAS-No</th>
<th>Type</th>
<th>Value</th>
<th>Occupational exposure limit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated Carbon</td>
<td>931-328-0</td>
<td>7440-44-0</td>
<td>TWA</td>
<td>OES 1mg/m³</td>
<td>8 Hours</td>
</tr>
<tr>
<td>HDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 Biological limits values
No biological exposure limits noted for the ingredient(s).

8.1.3 Exposure limits at intended use
Not applicable

8.1.4 DNEL/PNEC-values
No data available

8.1.5 Risk management measures according to used control banding approach
Not applicable
8.2 Exposure controls

8.2.1 Appropriate engineering controls: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure; ensure there is sufficient ventilation of the area and control of process conditions.

8.2.2 Personal protective equipment

Eye / Face protection:
Suitable eye protection Wear suitable eye protection (safety glasses with side shields). Ensure eye bath is to hand.

Skin protection:
Hand protection Suitable gloves can be recommended by the glove supplier.

Body protection Protective clothing with elasticated cuffs and closed neck.

Respiratory protection Approved particulate filter is recommended, if excessive dust is generated, avoid inhalation of dust. Wear suitable respiratory protection equipment if working in confined spaces with inadequate ventilation or whenever there is any risk of the exposure limits being exceeded.

8.2.3 Environmental exposure controls Preventing from entering in public sewers or the immediate environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:
Physical state: Pellets Colour: Black Odour: Odourless Solubility in water: Insoluble

pH Not Applicable
Melting Point/Freezing point Not Applicable
Boiling Point Not Applicable
Flash Point Not Available
Evaporation rate Not Available
Flammability (solid, gas) Non-flammable

Upper/lower flammability or explosive limits

Upper explosive limits Not Applicable
Lower explosive limits Not Applicable

Vapour pressure Not Available
Vapour density Not Available
Relative density Not Available
Solubility(ies) Not Available
Partition coefficient: n-octanol/water Not Available
Auto-ignition temperature Not Available
Decomposition temperature Not available
Safety Data Sheet
According to Regulation (EC) No 1907/2006 (REACH)

Trade Name: Brownell Limited
Product No: 3mm Activated Carbon Pellets
Version No: MCS/121 - 01 / EN

Viscosity
Viscosity, dynamic
Viscosity, cinematic
Explosive properties
Oxidising properties

9.2 Other information:
Physical hazards
Explosives: Not available
Flammable gases: Not applicable
Flammable aerosols: Not applicable
Oxidising gases: Not available
Gases under pressure: Not available
Flammable liquids: Not applicable
Flammable solids: Not applicable
Self-reactive substances and mixtures
Pyrophoric liquids Not available
Pyrophoric solids Not available
Self-heating substances and mixtures
Substances or mixtures which, in contact with water emit flammable gases
Oxidising liquids Not available
Oxidising solids Not available
Organic peroxides Not available
Metal corrosion Not available

SECTION 10: Stability and reactivity

10.1 Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport

10.2 Chemical stability
Material is stable under normal conditions and hygroscopic

10.3 Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use

10.4 Conditions to avoid
Sources of ignition.

10.5 Incompatible materials
Strong oxidising agents

10.6 Hazardous decomposition products
In combustion emits toxic fumes of carbon dioxide / carbon monoxide
SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity: Animal data

<table>
<thead>
<tr>
<th>Substance</th>
<th>Effect dose / concentration</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>-</td>
<td>0</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Acute inhalation</td>
<td>1H LC50</td>
<td>&gt;64.4mg/l</td>
<td>Rat</td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>LD50</td>
<td>&gt;2,000mg/kg</td>
<td>Rat</td>
</tr>
</tbody>
</table>

- **Skin corrosion/irritation**: There may be mild irritation at the site of contact.
- **Eye damage/irritation**: There may be irritation and redness.
- **Sensitisation to the respiratory tract/skin**: There may be irritation of the throat with a feeling of tightness in the chest.
- **Germ cell mutagenicity**: No data available
- **Carcinogenicity**: Activated carbon is not classifiable as to its carcinogenicity to humans (Group 3).
- **Reproductive toxicity**: No data available
- **Specific target organ toxicity (single exposure)**: No data available
- **Specific target organ toxicity (repeated exposure)**: No data available
- **Aspiration hazard**: Dust may irritate lungs. Activated carbon is not known to cause silicosis.

**Physical, chemical and toxicological characteristics**

- **In case of ingestion**: No symptoms
- **In case of skin contact**: Dust may have a drying effect on the skin and mild irritation.
- **In case of inhalation**: Activated carbon has little adverse effect on lungs and does not produce significant disease or toxic effect when exposure is kept below the permitted limits. However existing medical conditions (e.g. asthma, bronchitis) may be aggravated by exposure to dust. Effects of dust may be greater and occur at lower levels of exposure in smokers compared to non-smokers.

- **In case of eye contact**: Dust may cause discomfort and mild irritation.

11.1.2 Mixtures

No data available

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Species</th>
<th>Test</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algae</td>
<td>72H IC50</td>
<td>Exempt</td>
<td>-</td>
</tr>
<tr>
<td>Daphnia</td>
<td>48H EC50</td>
<td>Exempt</td>
<td>-</td>
</tr>
<tr>
<td>Fish</td>
<td>96H LC50</td>
<td>Exempt</td>
<td>-</td>
</tr>
</tbody>
</table>
12.2 Persistence and degradability  
Does not biodegrade.

12.3 Bioaccumulative potential  
Does not bioaccumulate.

12.4 Mobility in soil  
Non-volatile and insoluble in water.

12.5 Results of PBT and vPvB assessment  
This substance is not classified as PBT or vPvB according to current EU criteria.

12.6 Other adverse effects  
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product / packaging disposal  
Dispose of as normal industrial waste.

Waste codes / waste designations according to EWC/AVV  
15 02 03

Packaging  
No data available

Waste treatment options  
Disposal of in accordance with all applicable local and national regulations. This material is not classified as special waste under UK Special Waste Regulations 1996 and can be disposed of by landfill at an approved site.

Other disposal recommendations  
Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

14.1 UN No.  
Not classified as dangerous goods under the United Nations Transport Recommendations.

14.2 UN Proper Shipping name  
Not applicable.

14.3 Transport hazard class(es)  
Not applicable.

Hazard label(s)  

14.4 Packing group  
Not applicable.

14.5 Environmental hazards  
Not applicable.

14.6 Special precautions for user  
Not applicable.
14.7 Transport in bulk

according to Annex II of MARPOL 73/78 and the IBC Code
Land transport (ADR/RID) Not regarded as dangerous goods
Inland Waterway transport (ADN) Not regarded as dangerous goods
Sea transport (IMDG) Not regarded as dangerous goods
Air transport (ICAO-TI / IATA-DGR) Not regarded as dangerous goods

SECTION 15: Regulatory information

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

15.1.1 EU regulations
Authorisations: Not applicable
Restrictions on use: Not applicable

15.1.2 National regulations
Not Available

15.2 Chemical safety assessment
A chemical safety assessment has been carried out for the substance or the mixture by the supplier.

SECTION 16: Other information

16.1 Indication of changes
MSDS first issued 03rd January 2017

16.2 Abbreviations and acronyms
Not applicable

16.3 Key literature references and sources for data
ECHA European Chemicals agency

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]
Regulation (EU) No. 1272/2008:
Classification, labelling and packaging of substances and mixtures.
The product does not need to be labelled in accordance with Directive 67/548/EEC.
Not classified as a hazardous substance or mixture according to Directive 1999/45/EC.
This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.
Not classified as UN1362 for transport purposes, exemption under special provisions 646 (ADR), 925 (IMDG) and A3 (IATA)

16.5 Relevant R-, H- and EUH-phrases (number and full text)  
Not applicable

16.6 Training advice  
Follow training instructions when handling this material.

16.7 Further information  
Not available.

Disclaimer  
The information provided in the SDS is correct to the best of our knowledge at the date of publication. This document is intended as a guide for safe handling, storage and use in known industrial applications. The manufacturer makes no representation, warranty or guarantee as to its accuracy, reliability or completeness nor assumes any liability for its use. It is the user's responsibility to confirm in advance that the information is current, applicable and suitable to their circumstances for each particular use. No representative of ours has authority to waive this provision.