# SAFETY DATA SHEET

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

### 1.1 Product identifier

| | |
|---|---|
| **Product name** | **Petroleum Coke (Green Coke)** |
| **Other means of identification** | High Sulphur Petcoke, Medium Sulphur Petcoke, Low Sulphur Petcoke, Shot Coke |
| **Product code** | SSP2237 |
| **SDS #** | SSP2237 |
| **EC number** | 265-080-3 |
| **CAS number** | 64741-79-3 |
| **REACH Registration number** | Exempt from REACH: According to the provisions of Article 2(7)(b) and Annex V of REACH |
| **Product type** | Amorphous solid powder or lumps. |

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

| | |
|---|---|
| **Use of the substance/ mixture** | Fuel.<br>For specific application advice see appropriate Technical Data Sheet or consult our company representative. |

### 1.3 Details of the supplier of the safety data sheet

| | |
|---|---|
| **Supplier** | BP Energía España, S.A.U.<br>Calle Quintanadueñas, 6<br>Planta 2<br>28050 Madrid<br>España<br><br>Tel: +34 90 210 7001<br>Fax: +34 91 661 8285 |
| **E-mail address** | MSDSadvice@bp.com |

### 1.4 Emergency telephone number

| | |
|---|---|
| **EMERGENCY TELEPHONE NUMBER** | +34 90 210 7490 (24/7) Toxicologic Information Service: +34 91 562 0420 |

**REACH Registration number**

| Registration number | Legal entity |
|---|---|
| Exempt from REACH: According to the provisions of Article 2(7)(b) and Annex V of REACH | - |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** UVCB

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

Not classified.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

### 2.2 Label elements

| | |
|---|---|
| **Signal word** | No signal word. |
| **Hazard statements** | No known significant effects or critical hazards. |
| **Precautionary statements** | |
| **Prevention** | Not applicable. |
| **Response** | Not applicable. |
| **Storage** | Not applicable. |
| **Disposal** | Not applicable. |
| **Hazardous ingredients** | Coke (petroleum) |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

## SECTION 2: Hazards identification

**Supplemental label elements** Not applicable.

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**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**

| PBT | P | B | T | vPvB | vP | vB |
| --- | --- | --- | --- | --- | --- | --- |
| No | N/A | N/A | No | N/A | N/A | N/A |

**Other hazards which do not result in classification**

Fine dust clouds may form explosive mixtures with air.
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.
This material may contain significant quantities of polycyclic aromatic hydrocarbons, some of which have been shown by experimental studies to induce skin cancer.
May form explosible dust-air mixture if dispersed.
The product can slowly self-heat if stored in a large deep pile. The risk of spontaneous combustion is greater when the product is older, and the pile is higher/deeper.
May form combustible dust concentrations in air.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

**Product definition** UVCB

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
| --- | --- | --- | --- | --- | --- |
| Coke (petroleum) | REACH #: Annex V<br>EC: 265-080-3<br>CAS: 64741-79-3 | 100 | Not classified. | - | [1] |

Type

[1] Constituent

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation develops.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

**Inhalation** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**Ingestion** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training.

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

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

**Potential acute health effects**



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 4: First aid measures

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

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

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

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Inhalation** Overexposure to dust may cause mechanical irritation. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Repeated and prolonged inhalation of any respirable dust may result in changes in lung function.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

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

**Notes to physician** Treatment should in general be symptomatic and directed to relieving any effects.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** In case of fire, use water spray (fog), foam, dry chemical or $CO_2$.

**Unsuitable extinguishing media** Whenever possible, avoid spraying High Pressure water directly onto a pile of burning coke (unless the pile is small enough so that the coke can be fully "drenched"). High pressure fire water stream may disperse red hot coke particles and spread out the fire.

Avoid applying water that can come in contact with the burning coke piles in confined space, such as barns or silos. There were reports of minor explosion (that did not significantly damage structure but spread the fire and made it more difficult to contain) when fire water was sprayed directly to a burning coke pile inside a barn. Conventional thinking is that the water will turn to steam which may displace air around the burning coke, reduce the oxidation rate of volatiles, and may even generate more H2 through the water shift equation. This may result in local areas that exceed minimum explosion concentration of volatiles.

Spread out hot product in a safe area before applying water.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** Fine dust clouds may form explosive mixtures with air.

**Hazardous combustion products** Combustion products may include the following:
carbon oxides (CO, $CO_2$) (carbon monoxide, carbon dioxide)
sulphur oxides (SO, $SO_2$, etc.)

### 5.3 Advice for firefighters

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

Burns very hot. May quickly destroy concrete and steel.
The best way to extinguish a fire in a pile of product is to remove some of the hot product from the pile to a safe area. The removed product can be spread out on the ground and water applied to it. Crushing the hot product into smaller pieces is also effective because this makes it easier to cool the product.

**Special protective equipment for fire-fighters** 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.

**Additional information** This material is a static accumulator. May produce or accumulate static electricity with the risk of causing fire and explosion. Static charges can accumulate during shipping, unloading

of causing fire and explosion. Static charges can accumulate during shipping, unloading, pouring or conveying.

If a fire occurs, determine its locations and extent as quickly as possible. The use of a thermal imaging device or camera will help to concentrate effort on the seat of a fire. Proper and continuous monitoring of carbon monoxide (CO) must be performed when working in any areas where the product is thought to be burning.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 5: Firefighting measures

Product fires in a confined space, such as a silo, should be handled with great care because there is a risk of steam explosion if water is put in contact with red burning coke in a confined storage space. Whenever possible, to avoid the risk of steam explosion, bulk product stored in a confined space should first be removed to an open area. Hot product can be drenched with water in an open area. Under certain conditions, burning product exposed to water may produce flammable gases (CO, H2) which feed the fire or create explosion risk.

For bulk product stored in a pile out of doors, it is best to dig out and remove the product in the part of the pile that is being heated. Hot product being dug out should be drenched with water as it is exposed.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Eliminate all ignition sources. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. No flares, smoking or flames in hazard area. Avoid breathing dust. 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). Keep substance damp using water spray. Do not use water jet. Avoid breathing dust. Avoid creating dusty conditions and prevent wind dispersal. Contain and collect spillage with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 6.3 Methods and material for containment and cleaning up

**Small spill**

Eliminate all ignition sources. Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

**Large spill**

Eliminate all ignition sources. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 5 for firefighting measures.
See Section 8 for information on appropriate personal protective equipment.
See Section 12 for environmental precautions.
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. 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. Do not reuse container.

The need for additional measures for explosion protection should be evaluated (see NFPA 68--Guide for Venting of Deflagrations; and NFPA 69--Standard on Explosion Prevention Systems).

**Advice on general occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 7: Handling and storage

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Separate from oxidising 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. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

**Not suitable**

Prolonged exposure to elevated temperature.

**7.3 Specific end use(s)**

**Recommendations**

See section 1.2 and Exposure scenarios in annex, if applicable.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| pitch, coal tar, high-temp. | **National institute of occupational safety and health (Spain). [Coal tar, high temperature. Pitch volatile as benzene solubles]** TWA: 0.2 mg/m³ 8 hours. Issued/Revised: 2/2011 |

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

**Recommended monitoring procedures**

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.

**Biological exposure indices**

| Product/ingredient name | Exposure indices |
|---|---|

No exposure indices known.

**Derived No Effect Level**

No DNELs/DMELs available.

**Predicted No Effect Concentration**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls**

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and

appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

**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. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

**Recommended:** Filter type: P

**Eye/face protection**



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 8: Exposure controls/personal protection

**Recommended:** Goggles, face shield or other full-face protection where potential exists for direct exposure to dust.

**Skin protection**

**Hand protection**

**General Information:**

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

**Breakthrough time:**

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.
Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.
If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.
It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

**Glove Thickness:**

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.

• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

**Recommended:** Impervious gloves.

**Skin and body**

Use of protective clothing is good industrial practice.
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.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 8: Exposure controls/personal protection

**Refer to standards:**

Respiratory protection: EN 529
Gloves: EN 420, EN 374
Eye protection: EN 166
Filtering half-mask: EN 149
Filtering half-mask with valve: EN 405
Half-mask: EN 140 plus filter
Full-face mask: EN 136 plus filter
Particulate filters: EN 143
Gas/combined filters: EN 14387

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

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

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Amorphous solid powder or lumps. |
| **Colour** | Black. |
| **Odour** | Odourless./ Mild Hydrocarbon. |
| **Odour threshold** | Not available. |
| **pH** | Not available. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | Open cup: >93°C (>199.4°F) [Cleveland] |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | May burn when exposed to flame or high temperature. |
| **Lower and upper explosion limit** | Lower explosion limit: 60 g/m³ |
| **Vapour pressure** | 0.13 kPa (1 mm Hg) [3586°C (6486.8°F)] |
| **Relative vapour density** | Not applicable. |
| **Relative density** | 1.5 |
| **Density** | Bulk density 700 to 900 kg/m³ (0.7 to 0.9 g/cm³) |

**Solubility(ies)**

| Media | Result |
|---|---|
| ☑ Water | Not soluble |

| | |
|---|---|
| water | Not soluble |

| | |
|---|---|
| **Miscible with water** | No. |
| **Partition coefficient: n-octanol/ water** | Not available. |
| **Auto-ignition temperature** | >300°C (>572°F) |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not applicable. Based on physical state. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not considered oxidizing based on structural considerations. |
| **Remarks** | Maximum Explosive Pressure: 7.5 ± 1.5 Bar-g<br>Rmax: 340 ± 70 bar/s<br>Deflagration index (Kst): 94 ± 20 bar.m/s<br>Minimum explosive concentration (MEC): 60 to 80 g/m³<br>Minimum ignition energy (mJ): > 1000<br><br>Minimum smoldering temperature >390 °C (EC 202, C1)<br>Minimum oven self-ignition temperature (DIN 15188) = 308 °C<br><br>Dry Green Coke dust is combustible, ST1 class dust. Note that normal operations involving Green Coke will not be classified as Hazardous (Hazardous Area Classification per NFPA 499) because typical green coke has 4 to 12% moisture, and the required ignition energy is extremely high and is not be possible under normal operations. |



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 9: Physical and chemical properties

**Particle characteristics**

**Median particle size** Not available.

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**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.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

**10.4 Conditions to avoid** Keep away from heat, sparks and flame. Keep away from sources of ignition. To reduce the risk of fire, prevent the movement of air through the product during storage.

**10.5 Incompatible materials** Reactive or incompatible with the following materials: oxidising materials.

**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 hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

| Product/ingredient name | Result / Route | Test authority / Number | Species | Dose | Exposure | Remarks |
|---|---|---|---|---|---|---|
| Coke (petroleum) | LC50 - Inhalation Gas. | Huntingdon Life Sciences (1999) | Rat | >50 mg/m³ | 6 hours | Based on Coke (petroleum), Coke, petroleum, Calcined |
| | LC50 - Inhalation | IRDC (1985) | Rat | >30.7 mg/m³ | 6 hours | Based on |

| | | | | |
|---|---|---|---|---|
| | Inhalation Vapour | (1985) | | Coke (petroleum), Coke, petroleum, Calcined |

**Conclusion/Summary** Not classified. Based on available data, the classification criteria are not met.

**Acute toxicity estimates**

Not available.

**GERM CELL MUTAGENICITY**

| Product/ingredient name | Test authority / Test number | Cell | Type | Result | Remarks |
|---|---|---|---|---|---|
| Coke (petroleum) | - - | Experiment: In vitro | Subject: Bacteria | Negative | Based on Coke (petroleum) |
| | - - | Experiment: In vitro | Subject: Mammalian-Animal | Negative | Based on Coke (petroleum) |
| | - - | Experiment: In vivo | Subject: Mammalian-Animal | Negative | Based on Coke (petroleum) |

**Conclusion/Summary** Not classified. Based on available data, the classification criteria are not met.

**Carcinogenicity**

| Product/ingredient name | Test authority / Test number | Species | Route | Exposure | Result | Remarks |
|---|---|---|---|---|---|---|
| Coke (petroleum) | - - | Mouse | Dermal | - | Negative | Based on Coke (petroleum) |





## SECTION 11: Toxicological information

**Conclusion/Summary** Not classified. Based on available data, the classification criteria are not met.

**Conclusion/Summary** Aspiration hazard: Not classified. Based on available data, the classification criteria are not met.

**Specific target organ toxicity**

| Product/ingredient name | Hazard | Test authority / Test number | Species | Route | Type | Dose | Exposure | Target organs | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| Coke (petroleum) | STOT - RE | - - | Rat | Inhalation | LOAEL | 30.7 mg/m³ | 2 years | None. | Based on Coke (petroleum) |
| | STOT - RE | - 1999 | Rat | Inhalation | NOAEL | >50 mg/m³ | 63 days | None. | Based on Coke (petroleum) Coke, petroleum, Calcined |
| | STOT - RE | - 1981 | Mammal - species unspecified | Inhalation | NOEL | 30.7 mg/m³ | 24 months | None. | Based on Coke (petroleum) |

**Conclusion/Summary** STOT - SE: Not classified. Based on available data, the classification criteria are not met.
STOT - RE: Not classified. Based on available data, the classification criteria are not met.

**Information on likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation, Eyes.

**Potential acute health effects**

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

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

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

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |
| **Ingestion** | No specific data. |
| **Skin contact** | No specific data. |
| **Eye contact** | Adverse symptoms may include the following:<br>irritation<br>redness |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

| | |
|---|---|
| **Inhalation** | Overexposure to dust may cause mechanical irritation. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Repeated and prolonged inhalation of any respirable dust may result in changes in lung function. |
| **Skin contact** | No known significant effects or critical hazards. |
| **Eye contact** | Potential risk of transient stinging or redness if accidental eye contact occurs. |

**Potential chronic health effects**

| | |
|---|---|
| **General** | Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **Mutagenicity** | No known significant effects or critical hazards. |
| **Developmental effects** | No known significant effects or critical hazards. |
| **Fertility effects** | No known significant effects or critical hazards. |

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

**Remarks - Endocrine disruptor - Health** Not available.

#### 11.2.2 Other information

Not available.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 12: Ecological information

### 12.1 Toxicity

**Environmental hazards** Not classified as dangerous

### 12.2 Persistence and degradability

Not readily biodegradable.

### 12.3 Bioaccumulative potential

Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

### 12.4 Mobility in soil

| | |
|---|---|
| **Soil/water partition coefficient ($K_{OC}$)** | Not available. |
| **Mobility** | Spillages are unlikely to penetrate the soil. |

### 12.5 Results of PBT and vPvB assessment

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|---|---|---|---|---|---|---|---|
| Coke (petroleum) | No | N/A | N/A | No | N/A | N/A | N/A |

| | |
|---|---|
| **12.6 Endocrine disrupting properties** | Not available. |
| **Remarks - Endocrine disruptor - Environment** | Not available. |
| **Other ecological information** | Because the bulk density of the product is less than the density of water, smaller particles of product will float on the surface of water. Particles of product spilt into water may begin to stick |

together to form larger particles. As particles become larger or saturated with water their bulk density may increase. Particles of product will begin to sink when their bulk density is greater than the density of water.

**12.7 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**European waste catalogue (EWC)**

| Waste code | Waste designation |
|---|---|
| 05 01 99 | wastes not otherwise specified |

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

**Packaging**

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

**Special precautions** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**Other information** Dusts generated during the removal of ash deposits from engine/boiler combustion surfaces or exhaust spaces, will be harmful if inhaled and may cause nausea and eye, nose and throat irritation. Repeated contact may result in serious irreversible disorders. Ash/dust produced by the combustion of product may contain hazardous components such as the oxides of vanadium and other heavy metals. If possible, before working in the combustion/exhaust spaces of engines/boilers or before handling ash/dust produced by the combustion of product, the work area should be thoroughly dampened with water. This will help to minimise the amount of airborne contamination produced by the work activity. However, because of the risk of explosion, do not allow water to come into contact with hot ash/dust. Avoid inhalation of ash/dust from combustion/exhaust spaces. Wear suitable respiratory protective devices and chemical protective clothing when working in or inspecting engine/boiler combustion/exhaust spaces. Chemical protective suit to protect against airborne solid particulates.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## SECTION 13: Disposal considerations

**References** Commission 2014/955/EU
Directive 2008/98/EC

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number or ID number** | Not regulated. | 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. | No. |
| **Additional information** | - | **Remarks** The product is not classified as dangerous when transported in | **Remarks** The product is not classified as dangerous when transported in | - |

| | | | | |
|---|---|---|---|---|
| | | packages.<br><br>When the product is being transported, the temperature at which it is loaded for transport must be in accordance with transport regulations. When regulations do not specify the maximum temperature at which product is loaded for transport, the temperature of the product must be low enough to prevent self-heating or spontaneous combustion during transport. | packages. The product is not classified as dangerous unless it is being transported as a solid bulk cargo.<br><br>The product is listed in the Code of Safe Practice for Solid Bulk Cargoes (IMSBC-Code) that is published by the International Maritime Organisation (IMO). PETROLEUM COKE (calcined or uncalcined): Class MHB, Group B.<br><br>The product must not be loaded into cargo vessels when its temperature exceeds the temperatures specified in the Code of Safe Practice for Solid Bulk Cargoes. | |

**14.6 Special precautions for user** Not available.

**14.7 Maritime transport in bulk according to IMO instruments**

**Remarks**

**Solid bulk cargoes:**
Harmful to the marine environment with regard to MARPOL Annex V:: No
Material is hazardous only in bulk according to the IMSBC:: Yes
IMSBC shipping group:: B



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878**

## 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.

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Other regulations**

**REACH Status** The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

**United States inventory (TSCA 8b)** Not determined.

| | |
|---|---|
| **Australia inventory (AIIC)** | Not determined. |
| **Canada inventory** | Not determined. |
| **China inventory (IECSC)** | Not determined. |
| **Japan inventory (CSCL)** | Not determined. |
| **Korea inventory (KECI)** | Not determined. |
| **Philippines inventory (PICCS)** | Not determined. |
| **Taiwan Chemical Substances Inventory (TCSI)** | Not determined. |

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

Not listed.

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

Not listed.

**Persistent Organic Pollutants**

Not listed.

**EU - Water framework directive - Priority substances**

None of the components are listed.

**Seveso Directive**

This product is not controlled under the Seveso Directive.

| | |
|---|---|
| **15.2 Chemical safety assessment** | Not available. |

## SECTION 16: Other information

**Abbreviations and acronyms**

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement





## SECTION 16: Other information

EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SADT = Self-Accelerating Decomposition Temperature
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative
Varies = may contain one or more of the following 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4/ RRN 01-2119483621-38, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications [CLP/GHS]** | Not applicable. |

**History**

| | |
|---|---|
| **Date of issue/ Date of revision** | 18/11/2022. |
| **Date of previous issue** | 23/06/2022. |
| **Prepared by** | Product Stewardship |

**Indicates information that has changed from previously issued version.**

**Notice to reader**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.