

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 no.	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. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
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1.3 Details of the supplier of the safety data sheet

Supplier	BP Oil España S.A.Unipersonal Avenida de Barajas 30, Parque Empresarial Omega - Edificio D Alcobendas, Madrid, 28108 España
E-mail address	MSDSadvice@bp.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER	Tel: +34 964 34 71 80 Fax: +34 964 73 71 70
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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.
Supplemental label elements	Not applicable.

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

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SECTION 2: Hazards identification

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

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

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

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.

SECTION 3: Composition/information on ingredients

3.1 Substances

Product definition UVCB

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Coke (petroleum)	REACH #: Annex V EC: 265-080-3 CAS: 64741-79-3	100	Not classified.	[A]

Type

- [*] Substance
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

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.

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SECTION 4: First aid measures

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.

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.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media In case of fire, use water spray (fog), foam, dry chemical or CO₂.

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, CO₂) (carbon monoxide, carbon dioxide)
sulphur oxides (SO, SO₂, 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, 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

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SECTION 5: Firefighting measures

where the product is thought to be burning.

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 spilled 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 spilled 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. 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. Dike spill area and do not allow product to reach sewage system and surface or ground water. 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.

Advice on general occupational hygiene

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). 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.

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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

Other applicable exposure guidelines:

National institute of occupational safety and health (Spain).

TWA: 0.2 mg/m³ 8 hours. Issued/Revised: 7/2001

pitch, coal tar, high-temp.

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

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.

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

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

Skin protection

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SECTION 8: Exposure controls/personal 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.

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.

Skin and body

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

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.
Upper/lower flammability or explosive limits	Lower explosion limit: 60 g/m³
Vapour pressure	0.13 kPa (1 mm Hg) [3586°C (6486.8°F)]
Vapour density	Not available.
Relative density	1.5
Density	Bulk density 700 to 900 kg/m³ (0.7 to 0.9 g/cm³)
Solubility(ies)	insoluble in water.
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	<p> Pmax: 7.5 +/- 1.5 bar-g Rmax: 340 +/-70 bar/s Kst: 94 +/-20 bar-m/s MEC: 60 to 80 g/m3 MIE (by inductance): > 1,000 mJ </p> <p> Minimum smoldering temperature >390 C (EC 202, C1) Minimum oven self-ignition temperature (DIN 15188) = 308 C </p> <p> 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. </p>

9.2 Other information

No additional information.

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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 toxicological effects

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/m ³	6 hours	Based on Coke (petroleum), Coke, petroleum, Calcined
	LC50 Inhalation Vapour	- IRDC (1985)	Rat	>30.7 mg/m ³	6 hours	Based on Coke (petroleum), Coke, petroleum, Calcined

GERM CELL MUTAGENICITY

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

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

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

Specific target organ toxicity

SECTION 11: Toxicological information

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/m ³	2 years	None.	Based on Coke (petroleum)
	STOT - RE -	1999	Rat	Inhalation	NOAEL	>50 mg/m ³	63 days	None.	Based on Coke (petroleum) Coke, petroleum, Calcined
	STOT - RE -	1981	Mammal - species unspecified	Inhalation	NOEL	30.7 mg/m ³	24 months	None.	Based on Coke (petroleum)

Conclusion/Summary

STOT - SE: Based on available data, the classification criteria are not met.
 STOT - RE: Based on available data, the classification criteria are not met.

Information on likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

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:
 respiratory tract irritation
 coughing

Ingestion

No specific data.

Skin contact

No specific data.

Eye contact

Adverse symptoms may include the following:
 irritation
 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.

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.

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SECTION 12: Ecological information

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

PBT No.
vPvB No.

12.6 Other adverse effects

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.

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.

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

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-

SECTION 14: Transport information				
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	<p>Remarks The product is not classified as dangerous when transported in packages.</p> <p>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.</p>	<p>Remarks</p> <p>The product is not classified as dangerous when transported in packages. The product is not classified as dangerous unless it is being transported as a solid bulk cargo.</p> <p>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.</p> <p>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.</p>	-

14.6 Special precautions for user Not available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not available.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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 (AICS)

Not determined.

Canada inventory

Not determined.

China inventory (IECSC)

Not determined.

Japan inventory (ENCS)

Not determined.

Korea inventory (KECI)

Not determined.

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SECTION 15: Regulatory information

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.

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
 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 101316-69-2 / RRN 01-2119486948-13, 101316-70-5, 101316-71-6, 101316-72-7 / RRN 01-2119489969-06, 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, 64741-97-5 / RRN 01-2119480374-36, 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,

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64742-64-9, 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, 74869-22-0 / RRN 01-2119495601-36, 90669-74-2 / RRN 01-2119970171-43

Full text of abbreviated H statements	Not applicable.
Full text of classifications [CLP/GHS]	Not applicable.
History	
Date of issue/ Date of revision	13/09/2018.
Date of previous issue	14/03/2018.
Prepared by	Product Stewardship

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

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