SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Trade name: Paving bitumen: grade B 250/330

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

Relevant identified uses: paving bitumen.
Uses advised against: no other use is recommended.

1.3. Details of the supplier of the safety data sheet

Manufacturer:
Public Company *ORLEN Lietuva*
Mažeikių St. 75, Juodeikiai, LT-89453 Mažeikiai District, Lithuania
Tel.: +370 443 92121
E-mail address: post@orlenlietuva.lt

1.4. Emergency telephone number

Pharmacovigilance and Poison Information Unit (24/7): +370 5 236 2052 or +370 687 53378
General emergency number in Europe (24/7): 112

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP)
This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. However a safety data sheet is being supplied for it upon request as it contains a substance for which there is a Union workplace exposure limit.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)
Signal word: Not applicable.
Hazard pictogram (-s): Not applicable.

Hazard statements: Not applicable.
Precautionary statements: Not applicable.
Supplemental hazard information: Not applicable.

2.3. Other hazards

Does not contain substances on the Candidate List of Substances of Very High Concern (SVHC) ≥ 0.1 % published by the European Chemicals Agency in accordance with Article 57 of REACH.
Does not contain any substances assessed to be a PBT or a vPvB or having endocrine disrupting properties with concentration equal to or greater than 0.1 %.
Product is generally stored and handled at temperatures of 100 °C and above. Exposure of hot product (above 100 °C) with water results in spontaneous boiling of water and abrupt ejection of water-product emulsion from storage tank. Product is a mixture of hydrocarbon origin and therefore burns, especially at elevated temperature.
Product at ambient temperature presents no hazards to human health. Product is normally handled at elevated temperature and therefore may cause the risk of thermal burns.
When heated product evolves vapours. Although it is considered that vapour is non-hazardous to human health, for precautionary purposes exposure to the vapour should be minimal, good working practice should be observed and adequate ventilation of working area should be ensured.
Product is not classified as hazardous to the environment.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Substance identificator	Weight % content	Classification according to Regulation (EC) No 1278/2008 (CLP)
Residues (petroleum), vacuum CAS No. 64741-56-6 EC No. 265-057-8 Index No. – REACH reg. No. 01-2119498291-32-0018	74–100	Not classified.
Asphalt, oxidized CAS No. 64742-93-4 EC No. 265-196-4 Index No. – REACH reg. No. 01-2119498270-36-0007	0–26	Not classified.

Mixture contains substances for which workplace exposure limit value is established. Occupational exposure limits, if available, are listed in SECTION 8.
For full text of H-statements, see SECTION 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes

First aider: attention to personal protection equipment.
Contact with hot product may cause severe thermal burns. Hydrogen sulphide (H_2S) can accumulate in the headspace of storage tanks and reach potentially hazardous concentrations.

Following inhalation

Remove the affected person from the source of exposure. Move to fresh air, rest in a position comfortable for breathing, half-upright position, loosen clothing. If there is difficulty in breathing: oxygen or artificial respiration. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Always seek medical advice in case of significant exposure.
If casualty is unconscious and:

- not breathing, if breathing is irregular or if respiratory arrest occurs: ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical assistance, maintain an open airway.
- breathing: place in the recovery position. Administer oxygen if necessary. Obtain medical assistance if breathing remains difficult.

If there is any suspicion of inhalation of (H_2S) or SO_2: rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Remove casualty to fresh air as quickly as possible. Immediately begin artificial respiration if casualty stopped breathing. Provision of oxygen may help. Obtain medical advice for further treatment.

Following skin contact

In the event of accidental skin contact with hot product, the injured part should be immediately plunged under cold running water for at least 10 minutes. No attempt must be made to remove the product adherent to the skin at the worksite because it makes a sterile air-free layer over the injured area. In the case of a circumferential burn with adhesion of the product, the adhering material should be split to prevent a tourniquet effect as it cools. Send patient for specialist care.
For minor thermal burns: cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. However, body hypothermia must be avoided.
Do not put ice on the burn. Remove non-sticking garments carefully. Do not attempt to remove portions of clothing adhered to burnt skin but cut round them.
Never use gasoline, kerosene or other solvents for washing of contaminated skin.
Seek medical attention in all cases of serious burns.

Following eye contact

If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water for at least five minutes. Immediately obtain specialist medical assessment and treatment for the casualty.
In the event of eye contact with cold product, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

Following ingestion

Except for deliberate acts, not considered a likely route of exposure – burns of lips and mouth in contact with hot molten product. Do not induce vomiting. Get medical assistance. Aspiration: not applicable due to the physical state of product.

Self-protection of the first aider

Personal protective equipment for first aid responders is recommended.

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

Following inhalation: may cause irritation of the respiratory tract due to excess fume, mists or vapour exposure.
Following skin contact: contact at ambient temperature – no effect. Contact with hot/molten product will cause severe burns.
Following eye contact: contact with product at ambient temperature – minimal redness and irritation (unspecific). Contact with hot/molten product will cause severe burns.
Following ingestion: few or no symptoms are expected. If any, slight nausea might occur.

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

- Foam (specifically trained personnel only),
- Water fog (specifically trained personnel only),
- Dry chemical powder,
- Carbon dioxide,
- Inert gases (subject to regulations),
- Dry sand.

Unsuitable extinguishing media:

Do not use direct water jets on the burning product, they could cause splattering and spread the fire.
Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Combustion products

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide, H_2S, SO_x (sulfur oxides) or sulfuric acid and unidentified organic and inorganic compounds.

Specific hazards

Contact of hot product with water will result in a violent expansion as the water turns to steam. Contact of hot product in tank with water may cause spontaneous boil, ejection from tank and splashing. This may also result in the damage to the tank, rupture of the tank, or complete loss of the tank roof. Respiratory problems or nausea by excessive exposure to hot product fumes.

5.3. Advice for firefighters

In case of a large fire or in confined or poorly ventilated spaces wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode in addition to standard fire fighting gear. Protective clothing for firefighters (including helmets, gloves) shall comply with EN 469:2020 (*Protective clothing for firefighters. Performance requirements for protective clothing for firefighters*) to provide a basic level of protection in the event of chemical incidents. Block fire water for later disposal. Do not allow to enter drains, sewers or watercourses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Stop or contain leak at the source if safe to do so. Avoid direct contact with released material. Stay upwind, keep dust levels to a minimum preventing spreading of dust, ensure that sufficient ventilation or suitable respiratory protective equipment is used. Avoid breathing dust. Eliminate sources of ignition, if safe to do so (e.g. electricity, flares, fires, sparks). Keep non-involved personnel away from the area of spillage. Alert emergency personnel. If required, notify relevant authorities according to all applicable regulations. In case of large spillages, alert occupants in downwind areas. The justification for action (except in the case of minor spills) should always be assessed and coordinated by the competent person in charge of emergency management, if possible. In cases where it is suspected or proven that dangerous concentration of H_2S are present around a spill, additional or special actions may be required, including restriction of access, use of special protective equipment, other procedures and training of personnel.

6.1.2. For emergency responders

If required, notify relevant authorities according to all applicable regulations. Wear appropriate personal protective equipment. In the event of a small spillage of hot product, normal work clothes (overalls) are usually sufficient. In the event of a large spillage, a chemical-resistant thermal overalls. Work gloves (preferably with long, wide wrists), sufficiently resistant to chemicals. If contact with hot products is likely, the gloves should be heat-resistant and thermally insulating.

NOTE: gloves made of PVA are not water-resistant, and are not suitable for emergency use.

Work helmet. Antistatic non-skid safety shoes or boots, heat-resistant safety boots if necessary. Closed goggles or face shield (in case of splashes or possible contact with the eyes).

Respiratory protection: a half mask with dust filter, a full face respirator with filter(s) or a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2. Environmental precautions

Spillages onto land

Stop or contain leak at the source if safe to do so. Prevent product from entering sewers, rivers, waterways or other bodies of water.

NOTE: solidified product may clog drains and sewers.

Prevent entry into soil. Spillage of liquid hot product causes risk of acute thermal burns. If necessary dike the product with earth, sand or similar non-combustible materials. Let hot material cool naturally. If necessary, cautiously use water fog to help the cooling. Do not play direct jets of foam or water on the spilled molten product, as this may cause splattering.

When inside buildings or confined spaces, ensure adequate ventilation.

Spillages on water or at sea

Stop or contain leak at the source, if safe to do so. In case of spillages in the water, the product will cool down rapidly and become solid. The solid product is denser than water and will slowly sink to the bottom, and usually no intervention will be feasible. If possible, contain the spread of the product.

6.3. Methods and material for containment and cleaning up

Spillages onto land

Collect solidified product with suitable mechanical means (e.g. shovels). Transfer collected product to suitable containers for recycle, recovery or safe disposal.

Spillages on water bodies or the sea

Collect the product and contaminated materials with mechanical means. Transfer recovered product and other materials to suitable tanks or containers and store/dispose of according to relevant regulations.

Additional information

NOTE: the recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

Concentration of H_2S in tank headspaces may reach hazardous values, especially in case of prolonged storage. This situation is especially relevant for those operations which involve direct exposure to the vapours in the tank. Spillages of limited amounts of products, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which are unlikely to entail exposure to dangerous concentrations.

As H_2S has a density greater than ambient air, a possible exception may regard the build-up of dangerous concentrations in specific spots, like trenches, depressions or confined spaces. In all these circumstances, however, the correct actions should be assessed on a case-by-case basis.

6.4. Reference to other sections

See SECTION 8 for Exposure controls/personal protection. See SECTION 13 for Disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid release to the environment. Ensure that all relevant regulations regarding handling and storage facilities of product are followed. Product must be handled and stored as viscous liquid, i.e. at elevated temperature of above 100 °C. Avoid contact of hot product with water. Risk of splashing of hot material. Avoid contact with hot product.

A specific assessment of inhalation risks from the presence of H_2S in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases must be made to help determine controls appropriate to local circumstances.

7.2. Conditions for safe storage, including any incompatibilities

Handling

Wear appropriate personal protective equipment, including protective clothing and gloves. In case of insufficient ventilation, wear suitable respiratory equipment. Ground/bond containers, tanks and transfer/receiving equipment. Do not breathe fumes from hot product.

Storage

Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills.

Cleaning, inspection and maintenance of internal structure of storage equipment must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Before entering storage tanks and commencing any operation in a confined area check the atmosphere for oxygen content, hydrogen sulphide (H_2S) and flammability. Use adequate personal protective equipment as required.

Self-heating leading to auto ignition at the surfaces of porous or fibrous materials impregnated with oils or bitumens, can occur at temperatures as low as 100 °C. Oil and bitumen contamination of thermal insulation materials and the accumulation of oily rags or similar material near hot surfaces, should therefore be avoided, and lagging should be replaced where necessary by a nonabsorbent type of insulation.

Deposits (coke and pyrophoric compounds – iron sulphides) can develop on the internal walls and roofs of tanks in case of long term storage. These deposits may self-ignite in contact with the air.

Store separately from oxidizing agents.

Recommended and unsuitable materials for storage

Recommended materials: for containers (tanks), or container linings use mild steel, stainless steel.

Unsuitable materials: most synthetic materials are unsuitable for containers or container linings, due to low heat resistance. Compatibility should be checked with the manufacturer.

Container advice

If the product is supplied in containers: keep only in the original container or in a suitable container for this kind of product. Hot product must never be filled into containers without first checking that the container is completely dry.

Empty containers may contain flammable product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.

Precautionary measures when discharging bitumen from storage tanks, containers

When hot product is pumped from storage tanks or road and railway tanks, care should be taken to avoid hot product strewing on hot heating tubes because this may cause the ignition of the spattered product.

Product tanks may be heated by hot oil, electricity or heating tubes. When product is being pumped from tanks equipped with heating tubes, the level of product must not drop below 150 mm above the tubes. In order to pump out the remaining quantity of product the heating of the tank must be cut off. Bulk product temperature during handling must be maintained as low as possible consistent with discharge temperature.

When operating various heating systems, it is important to avoid local overheating of product whereas it may be the cause of local thermal cracking of product followed by the emission of flammable, explosive hydrocarbon gas and its potential ignition.

Hygiene measures

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside pockets. Keep away from food and beverages. Wash the hands thoroughly after handling. Change contaminated clothes at the end of working shift. Contaminated work clothing should not be allowed out of the workplace.

7.3. Specific end use(s)

See subsection 1.1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Substances for which occupational exposure limit values need to be controlled in the work environment:

Lithuanian Hygiene Standard HN 23:2011: not established.

Exposure limits

Comply with established national occupational exposure limits. Where not established, the following long-term exposure limit of H_2S, which may be evolved from hot product, is recommended: 14 mg/m³.

State	Limit value – either an eight-hour working day or a 40-hour working week		Limit value – Short term effects		Legal basis
	ppm	mg/m³	ppm	mg/m³	
Residues (petroleum), vacuum (CAS No. 64741-56-6)					
Germany		1,5(1)(2)		3(1)(2)(3)	Source: GESTIS International Limit Value Database
Remarks					
Germany	(1) Based on bitumen condensate standard (2) Skin (3) 15 minutes average value				

Biological limit values (BLV)

No biological limit value has been established.

Recommended monitoring procedures

Standard monitoring procedures must be followed.
Follow the monitoring measures applied in the country.

Derived no effect level DNEL

Derived no effect level (DNEL) or other conclusions of hazardous health effects:

Route of exposure	Type of exposure	Hazard assessment conclusion	Most sensitive endpoint
Residues (petroleum), vacuum (CAS No. 64741-56-6)			
Workers			
Systemic effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Local effects			
Inhalation	Long term exposure	DNEL 2.88 mg/m³	Repeated dose toxicity (Dermal)
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Eyes		No hazard identified	
General Population			

Systemic effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Oral	Long term exposure	No hazard identified	
Oral	Acute/short term exposure	No hazard identified	
Local effects			
Inhalation	Long term exposure	DNEL 0.61 mg/m³	Repeated dose toxicity (Dermal)
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Eyes		No hazard identified	
Asphalt, oxidized (CAS No. 64742-93-4)			
Workers			
Systemic effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Local effects			
Inhalation	Long term exposure	DNEL 2.88 mg/m³	Repeated dose toxicity (Dermal)
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Eyes		No hazard identified	
General Population			
Systemic effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Oral	Long term exposure	No hazard identified	
Oral	Acute/short term exposure	No hazard identified	
Local effects			
Inhalation	Long term exposure	DNEL 0.61 mg/m³	Repeated dose toxicity (Dermal)
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Eyes		No hazard identified	

Predicted No Effect Concentrations PNEC

No data and/or no hazard identified.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Volatility of product is low therefore it gives off small quantities of vapour. Exposure to vapour and gas must be minimized. Ensure good ventilation of workplaces.

Product handled at elevated temperature may cause thermal burns by contact with molten product. Heated product will give off fumes. Exposure should be kept to a minimum, by keeping temperatures as low as

possible, observing good work practice and ensuring good ventilation around work areas. Hydrogen sulphide may accumulate in the head space of storage tanks containing product and can reach potentially hazardous concentrations.

8.2.2. Individual protection measures, such as personal protective equipment

a) eye/face protection

Wear safety goggles or face shield. Wear eye protection with side protection (EN 166).

b) skin protection

i) hand protection

Use protective gloves: heat resistant gloves with long cuffs, or gauntlets (tested and compliant to EN 374–407). Check before use. Use only with clean hands. Contaminated gloves should be replaced. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations. Always seek advice from glove suppliers for use, storage, care and replacement of gloves.

ii) other

During normal operations with product, wear protective clothing (e.g. acc. to EN 465) and footwear. During operations with hot product, wear heat resistant coverall, heat resistant gloves and heat resistant heavy duty antiskid boots (e. g. leather). (EN 943 – 13034 – 14605). Cover your face, head and neck.
Protective clothing should be regularly inspected and maintained.

c) respiratory protection

Respiratory protection is not required at proper ventilation of working area. Use appropriate respiratory protection equipment in the areas potential for hydrogen sulphide accumulation, e.g. filtering mask with filter acc. to EN 141.

d) thermal hazards

When contact with heated product is anticipated use heat resistant protective equipment. Use dedicated equipment.

Hygiene measures

Comply with personal hygiene requirements. Wash hands before breaks, immediately after handling the product, and at the end of work. Wash immediately in case of skin contact. Do not eat during work.

8.2.3. Environmental exposure controls

To ensure the compliance of ventilation and process equipment with requirements of environmental legislation, emissions of such equipment are subject to verification. In some cases vapour filterring installations or process equipment modifications may be necessary for the reduction of emission to allowed limit.
Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Physical state	Solid at ambient temperature; Liquid at typical storage temperature (above 100 °C)
b) Colour	Black
c) Odour	Specific odour at storage temperature (above 100 °C)
d) Melting point/freezing point	30–38 °C
e) Boiling point or initial boiling point and boiling range	> 200 °C
f) Flammability	Not classified as flammable
g) Lower and upper explosion limit	Not applicable
h) Flash point	≥ 180 °C
i) Auto-ignition temperature	> 400 °C
j) Decomposition temperature	Not applicable
k) pH	Not applicable
l) Kinematic viscosity	≥ 100 mm^2/s at 135 °C
m) Solubility	Insoluble in water
n) Partition coefficient n-octanol/water (log value)	Not applicable
o) Vapour pressure	< 0.1 kPa (at 20 °C)
p) Density and/or relative density	> 1000 g/cm^3 (at 25 °C)
q) Relative vapour density	Not applicable

r) Particle characteristics	Not applicable

9.2. Other information

Penetration at 25 °C	250–330 x 0.1 mm

9.2.1. Information with regard to physical hazard classes

Not classified as flammable.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

Stable under the recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

Not expected to occur when handled and stored according to provisions.

10.4. Conditions to avoid

Prevent the contamination of equipment, apparatus and piping thermal insulation near hot surfaces with product. Where necessary, thermal insulation should be replaced by non-absorbent type of insulation. Due to potential spontaneous coking or oxidation processes, the surface layer of porous and fibrous materials impregnated with product or its condensates may self-heat or self-ignite at temperature below 100 °C.

10.5. Incompatible materials

Do not allow hot liquid product to contact with water or other liquids. Avoid product contact with strong oxidizing agents.

10.6. Hazardous decomposition products

In confined storage tank area toxic gas (hydrogen sulfide) may accumulate above hot product. Burning product evolves fume, carbon dioxide, carbon monoxide and other harmful gases.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

a) acute toxicity

Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data.
Oral toxicity: LD_{50} > 5000 mg/kg bw (test method equivalent or similar to OECD 401).
Inhalation toxicity: LC_{50} of 94.4 mg/m^3 air (4.5 h) (test method OECD 403).
Dermal toxicity: LD_{50} > 2000 mg/kg body weight (test method equivalent or similar to OECD 402).
Asphalt, oxidized
Oral toxicity: LD_{50} > 5000 mg/kg bw (test method equivalent or similar to OECD 401).
Inhalation toxicity: LC_{50} of 94.4 mg/m^3 (4 h) (test method equivalent or similar to OECD 403).
Dermal toxicity: LD_{50} > 2000 mg/kg body weight (test method equivalent or similar to OECD 402).

b) skin corrosion/irritation

Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 404).
Asphalt, oxidized
Does not meet the classification criteria based on available data (weight of evidence approach).

c) serious eye damage/irritation

Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum

Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 405).
Asphalt, oxidized
Does not meet the classification criteria based on available data (weight of evidence approach).

d) respiratory or skin sensitisation
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 406).
Asphalt, oxidized
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 406).

e) germ cell mutagenicity
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (weight of evidence approach).
Asphalt, oxidized
Does not meet the classification criteria based on available data (weight of evidence approach).

f) carcinogenicity
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (weight of evidence approach).
Asphalt, oxidized
Does not meet the classification criteria based on available data (weight of evidence approach).

g) reproductive toxicity
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (OECD 416).
Asphalt, oxidized
Does not meet the classification criteria based on available data (OECD 422).

h) STOT-single exposure
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (weight of evidence approach).
Asphalt, oxidized
Does not meet the classification criteria based on available data (weight of evidence approach).

i) STOT-repeated exposure
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (test methods: OECD 451, equivalent or similar to OECD 410).
Asphalt, oxidized
Does not meet the classification criteria based on available data (test methods: OECD 451, equivalent or similar to OECD 410).

j) aspiration hazard
Based on available data, the classification criteria are not met.

Experimental data of components:
Residues (petroleum), vacuum
Does not meet the classification criteria based on available data (weight of evidence approach).
Asphalt, oxidized

Does not meet the classification criteria based on available data (weight of evidence approach).

Information on likely routes of exposure

The main contact may be skin contact, eye contact, possible exposure by accidental ingestion.

Symptoms related to the physical, chemical and toxicological characteristics

Vapour evolved from hot product may lead to slight irritation of the upper respiratory tract and eyes.
Contact of hot liquid product with eyes or skin causes thermal burns.
Solid product does not cause skin irritation, whilst condensed product vapour may cause skin irritation.
Product presents no chronic hazards at ambient temperature. However, it does contain low concentrations of polycyclic aromatic compounds. It is deemed that undiluted product practically does not contain any of these compounds having biological activity characteristics. However, mixing product with diluting agents may produce such compounds. Despite the known presence of these compounds in product, there is no evidence that exposure to undiluted product or its fume is harmful. However, it is recommended to minimize exposure to such environment. Safety measures most frequently limit any long-term skin hazard.

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

No experimental toxicological data on the mixture as such available.

11.2 Information on other hazards

Endocrine disrupting properties

Not applicable. The substances in the mixture are not considered an endocrine disruptor.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Based on available data does not meet the classification criteria as hazardous to the aquatic environment.

12.2. Persistence and degradability

Substances are a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of these complex substances.

12.3. Bioaccumulative potential

Substances are a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of these complex substances.

12.4. Mobility in soil

Substances are a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of these complex substances.

12.5. Results of PBT and vPvB assessment

The composition does not contain any hydrocarbon structures assessed as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH, at a concentration equal to or greater than 0.1 % by weight.

12.6. Endocrine disrupting properties

This material does not contain any hydrocarbon structures that have been identified as having endocrine disrupting properties at concentrations equal to or greater than 0.1%.

12.7. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of wastes and residues in accordance with local waste regulations.
Product is not classified as hazardous waste. Recycling and utilization of unused product are recommended. Disposal of waste is subject to state and regional requirements. Contaminated containers must be disposed of by authorized agents. Personal protective equipment is necessary for personnel involved in waste disposal. Empty storage tanks may contain product residues; therefore, warning labels are to be retained as a guide to the safe tank handling and waste disposal. Empty containers represent a fire hazard as they may contain product residues or dust. Keep container tightly closed. Ensure tightness at all times.
DO NOT weld, solder and repair in other ways the tanks without proper preparation.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR-RID) / Inland waterway transport (UN RTDG/ADN(R)) / Marine transport (UN RTDG/IMDG) / Air transport (UN RTDG/ICAO/IATA)

14.1. UN number or ID number

ADR / RID / ADN / IMDG / IATA: UN 3257

14.2. UN proper shipping name

ADR / RID / ADN / IMDG / IATA: ELEVATED TEMPERATURE LIQUID, N.O.S., (PAVING BITUMEN: GRADE B 250/330)

14.3. Transport hazard class(es)

ADR / RID / ADN / IMDG / IATA: 9

14.4. Packing group

ADR / RID / ADN / IMDG / IATA: III

14.5. Environmental hazards

Not dangerous for the environment.

14.6. Special precautions for user

ADR / RID:

Hazard identification No.	99
Classification code	M9
Labels	9
Special provisions	274, 643, 668
Limited and excepted quantities	0
Packing instructions	P099
Tunnel restriction code	3 (D)

For details on special provisions, see In chapter 3.3 of the ADR / RID regulation.
See also SECTION 7 of the SDS for handling and storage advice.

ADN:

Classification code	M9
Labels	9
Special provisions	274, 643, 668
Equipment required	PP

IMDG:

EmS number	F-A, S-P
Limited and excepted quantities	None
IBC instructions	IBC01

3257 is category A for stacking and separation

IATA:

Labels	No data.
Limited and excepted quantities	No data.
Special provisions	No data.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU / international regulations:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Council Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.
- Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC.
- Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC).
- Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.
- Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
- International Maritime Dangerous Goods Code (IMDG Code).
- European Agreement concerning the International Carriage of Dangerous Goods by Air (IATA).
- Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.
- Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC).

Authorisations and / or restrictions on use

- Regulation (EC) No 1907/2006 (REACH) Annex XIV List of Authorised Substances: Not included.
- 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 included.
- Regulation (EC) No 1907/2006 (REACH) Article 59(10) SVHC (Candidate List of Substances of Very High Concern): Not included.
- Seveso III. Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC: Not applicable.

Note: any subsequent updates, amendments and/or additions to the legislation should be duly considered. The list of legal acts is not exhaustive.

15.2. Chemical safety assessment

The chemical safety assessment of the substance has been conducted.

SECTION 16: OTHER INFORMATION

Abbreviations:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
BLV	Biological limit values
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimum Effect Level

DNEL	Derived No-Effect Level
EC	EINECS (European Inventory of Existing Commercial Chemical Substances) or ELINCS (European List of Notified Chemical Substances)
EL_{50}	Effective loading rate resulting in 50% effect
EmS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EN	European standard of European Committee for Standardization
ErL_{50}	Loading Rate of Test Substance (in dilution water) which causes 50% reduction in algal growth rate
EU	European Union
IATA	International Air Transport Association
IBC	Intermediate bulk container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
JT	United Nations
LC_{50}	Lethal concentration for 50 % percent of test organisms
LD_{50}	Lethal dose for 50 % percent of test organisms (median lethal dose)
LL_{50}	Lethal load for 50 % of the test organisms
LR	Republic of Lithuania
LTEL	Long-term exposure limit value
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEL	Non observed effect level
OECD	Organization for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic
PNEC	Predicted no-effect concentration
RCR	Risk characterization ratio
RID	The Regulation concerning the International Carriage of Dangerous Goods by Rail
RTDG	Recommendations on the Transport of Dangerous Goods
REACH	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-term exposure limit value
STOT	Specific target organ toxicity
UFI	Unique Formula Identifier
UVCB	Substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very Persistent and very Bioaccumulative

Key literature references and sources for data
Registration documentation
Publicly available data from the national limit value databases of the European Chemicals Agency (ECHA), The GESTIS International Limit values Database.

Training advice
Employees/users must be trained/familiarized with the relevant safety information provided.

Do not use the product for any purposes other than indicated in the manufacturer's information.
During such use the user may be exposed to unforeseen hazards.
Should you have any questions or doubts regarding SDS, its contents or any other concerns related to safety of the product, please contact us by e mail: post@orlenlietuva.lt

NOTE: Information provided herein is considered to be accurate as of the date specified below. No warranty is made as to the accuracy or completeness of the data and information provided in this MSDS. Information provided herein serves only as guidelines for safe work, use, processing, storage, and waste handling. It cannot be considered as a warranty or statement of quality. This information applies only to the specific product and may not be suitable for use of the product in combination with any other substances or in any other manner contrary to that described in this document.
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