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

1.1. Product identifier

Trade name: Paving Bitumen: grade B 35/50

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*
Juodeikiai, LT-89453 Mažeikiai District, Lithuania
Tel.: +370 443 92121
E-mail address: post@orlenlietuva.lt

1.4. Emergency telephone number

Poison Information Bureau. In case of poisoning (24/7): +370 52 362052 or +370 687 53378
General helpline 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)
Not classified as hazardous mixture.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)
Signal word: N/A
Hazard pictogram: N/A
Hazard Statements: N/A
Precautionary statements: N/A

2.3. Other hazards

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

Product is a complex mixture of heavy hydrocarbons.

Substance Name	Concentration, %	Labelling according to CLP Regulation
Asphalt, oxidized EC No.: 265-196-4 CAS No.: 64742-93-4 Index No.: – REACH Registration No.: 01-2119498270-36-0007	72–100	Not classified
Residues (petroleum), vacuum EC No.: 265-057-8 CAS No.: 64741-56-6 Index No.: – REACH Registration No.: 01-2119498291-32-0018	0–28	Not classified

Product may contain 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

Product-Specific hazards

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.

4.1. Description of first aid measures

Inhalation

In case of symptoms arising from inhalation of fumes, mists or vapour of product: remove casualty to a quiet and well ventilated place if safe to do so.
If casualty is unconscious and:
- Not breathing – 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.
- 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:
- 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 breathing has ceased. Provision of oxygen may help. Obtain medical advice for further treatment.

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.

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.

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.

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

Inhalation may cause irritation of the respiratory tract due to excess fume, mists or vapour exposure. Skin contact at ambient temperature – no effect. Contact with hot/molten product will cause severe burns. Eye contact with product at ambient temperature – minimal redness and irritation (unspecific). Contact with hot/molten product will cause severe burns. 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

Flammability

Flammable.

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),
- Sand or earth.

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.

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 if safe to do so. Avoid direct contact with released material. Stay upwind. Keep non-involved personnel away from the area of spillage. Alert emergency personnel.

Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. It is recommended to eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). When the presence of dangerous amounts of H_2S around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training.

If required, notify relevant authorities according to applicable regulations.

6.1.2. For emergency responders

Small spillages: normal working coveralls are usually adequate. Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves (preferably gauntlets) providing adequate chemical resistance. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

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

Work helmet with neck cloth. Antistatic non-skid safety shoes or boots, heat resistant. Goggles and/or face shield, if contact with eyes or splashes are anticipated.

Respiratory protection: a half or full-face respirator with filter(s) for organic vapours/H_2S, 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. Leaks and spillages will consist of molten hot material. Risk of severe burns. Prevent product from entering sewers, rivers or other bodies of water.

NOTE: Solidified product may clog drains and sewers.

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 or at 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: 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

Ground/bond containers, tanks and transfer/receiving equipment. Do not breathe fumes from hot product. Use adequate personal protective equipment as required.

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

Ensure that proper housekeeping measures are in place. Do not eat, drink or smoke while using this product. Wash the hands thoroughly after handling.

7.3. Specific end use(s)

Product is used as a paving bitumen.

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:

Asphalt, oxidized, CAS No.: 64742-93-4
Lithuanian Hygiene Standard HN 23:2011: not established.
Residues (petroleum), vacuum, CAS No.: 64741-56-6
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/m^3.

Substance: Residues (petroleum), vacuum CAS No.: 64741-56-6					
State	Limit value – Eight hours		Limit value – Short term		Legal basis
	ppm	mg/m^3	ppm	mg/m^3	
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:

Substance: Asphalt, oxidized **CAS No.: 64742-93-4**			
Route of exposure	Type of exposure	Hazard assessment conclusion	Most sensitive endpoint

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	
Substance: Residues (petroleum), vacuum **CAS No.: 64741-56-6**			
Route of exposure	Type of exposure	Hazard assessment conclusion	Most sensitive endpoint
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

PNEC is not determined or cannot be determined.

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 glasses (e.g. acc. to 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 other protection equipment. 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 and after 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	50–58 °C
e) Boiling point or initial boiling point and boiling range	> 200 °C
f) Flammability	Not classified
g) Lower and upper explosion limit	Not applicable
h) Flash point	≥ 240 °C
i) Auto-ignition temperature	> 400 °C
j) Decomposition temperature	Not applicable
k) pH	Not applicable
l) Kinematic viscosity	≥ 370 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 — 35–50 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 at ambient temperature.

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 ℃.

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

Asphalt, oxidized, CAS No.: 64742-93-4

a) acute toxicity
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 (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
Does not meet the classification criteria based on available data (weight of evidence approach).
c) serious eye damage/irritation
Does not meet the classification criteria based on available data (weight of evidence approach).
d) respiratory or skin sensitisation
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 406).
e) germ cell mutagenicity
Does not meet the classification criteria based on available data (weight of evidence approach).
f) carcinogenicity
Does not meet the classification criteria based on available data (weight of evidence approach).
g) reproductive toxicity
Does not meet the classification criteria based on available data (OECD 422).
h) STOT-single exposure

Does not meet the classification criteria based on available data (weight of evidence approach).
i) STOT-repeated exposure
Does not meet the classification criteria based on available data (test methods: OECD 451, equivalent or similar to OECD 410).
j) aspiration hazard
Does not meet the classification criteria based on available data (weight of evidence approach).

Residues (petroleum), vacuum, CAS No.: 64741-56-6

a) acute toxicity
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).
b) skin corrosion/irritation
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 404).
c) serious eye damage/irritation
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 405).
d) respiratory or skin sensitisation
Does not meet the classification criteria based on available data (test method equivalent or similar to OECD 406).
e) germ cell mutagenicity
Does not meet the classification criteria based on available data (weight of evidence approach).
f) carcinogenicity
Does not meet the classification criteria based on available data (weight of evidence approach).
g) reproductive toxicity
Does not meet the classification criteria based on available data (OECD 416).
h) STOT-single exposure
Does not meet the classification criteria based on available data (weight of evidence approach).
i) STOT-repeated exposure
Does not meet the classification criteria based on available data (test methods: OECD 451, equivalent or similar to OECD 410).
j) aspiration hazard
Does not meet the classification criteria based on available data (weight of evidence approach).

Symptoms related to the physical, chemical and toxicological characteristics, delayed and immediate effects as well as chronic effects from short and long-term exposure

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.

11.2 Information on other hazards

Endocrine disrupting properties

Not applicable. The substances 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

Not considered to be PBT/vPvB.

12.6. Endocrine disrupting properties

Have not been identified as having endocrine disrupting properties.

12.7. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR-RID)

14.1. UN number or ID number

3257

14.2. UN proper shipping name

UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (Paving bitumen)

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Environmental hazards

Not dangerous for the environment.

14.6. Special precautions for user

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.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Inland waterway transport (UN RTDG/ADN(R))

14.1. UN number or ID number

3257

14.2. UN proper shipping name

UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (Paving bitumen)

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Environmental hazards

Not dangerous for the environment.

14.6. Special precautions for user

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

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Marine transport (UN RTDG/IMDG)

14.1. UN number or ID number

3257

14.2. UN proper shipping name

UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (Paving bitumen)

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Environmental hazards

Not dangerous for the environment.

14.6. Special precautions for user

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

3257 is category A for stacking and separation

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Air transport (UN RTDG/ICAO/IATA)

14.1. UN number or ID number

3257

14.2. UN proper shipping name

UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (Paving bitumen)

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Environmental hazards

Not dangerous for the environment.

14.6. Special precautions for user

–

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

Relevant EU/international legislations:

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)
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 (CLP)
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 (REACH)
Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste
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
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
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 on the International Carriage of Dangerous Goods by Road / Waterways (ADR / MDG)
European Agreement on the International Carriage of Dangerous Goods by Air (IATA)
2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes
Regulation (EC) No 1907/2006 (REACH):
SVHC (Candidate List of substances of very high concern for Authorisation): Not applicable
REACH Annex XIV (Authorisation List): Not applicable
REACH Annex XVII (Substances restricted under REACH): Not applicable
Regulation (EU) No 649/2012 (PIC): Not applicable
Regulation (EC) No 850/2004 (POT): Not applicable
Regulation (EC) No 1107/2009 (Plant protection products): Not applicable
Regulation (EU) No 528/2012 (Biocidal products): Not applicable
Regulation (EC) No 648/2004 (Detergents): Not applicable
Regulation (EC) No 1005/2009 (OSAM): Not applicable
Directive 2004/37/EC (related to exposure to carcinogens or mutagens at work): 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

Chemical safety assessment has been conducted.

SECTION 16: OTHER INFORMATION

Revision of safety data sheet: 2023-05-23
Revised: all sections.
During the review of the SDS, the data presented were clarified and arranged in accordance with the European Commission Regulation (EU) No. 2020/878 requirements.

Abbreviations and acronyms:

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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