SAFETY DATA SHEET


Product name: Hard paving bitumen 10/20
Date of issue: 23. 01. 2017
Revision date: 04. 12. 2017 (Version 1.1)

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

1.1 Product Identifier

**Product Identifier**

**Hard paving bitumen 10/20**

**Chemical name:**
Bitumen, Oxidized

**Registration No.:**
01-2119498270-36

1.2 Relevant identified uses of the substance/mixture and (uses advised against)

**Designated uses:**
Construction and maintenance of roads

Uses of the mixture not recommended: The product may not be used in any way other than those specified in sections 1 and 7.

1.3 Details of the supplier of the safety data sheet

**Name:** PARAMO, a.s.
**Place of business:** Přerovská 560, 530 06 Pardubice, Czech Republic
**Phone:** +420 466 810 111
**Fax:** +420 466 335 019
**E-mail:** paramo@paramo.cz
**Website:** www.paramo.cz
**Person(s) responsible for this Safety Data Sheet:** Ms. Marie Doleželová, marie.dolezelova@paramo.cz

1.4 Emergency telephone number

**Control Room of PARAMO, a.s.:** +420 466 303 175
**Toxicological Information Centre at Na Bojišti 1, 128 08 Prague 2, phone (Czech Republic only) (24 hours, 7 days a week):** +420 224 919 293, 224 915 402, 224 914 575
**Transport Information & Accident System (TRINS), phone:** +420 476 709 826

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to the Regulation (EC) No. 1272/2008 (CLP), the product is not classified as hazardous.

2.2 Label elements

**Pictogram:** None
**Warning description:** None
**Dangerous substances:** None
**Standard phrases of hazard:**
None

**Safe handling instructions:**
P280 Wear protective gloves/protective clothing/eye protection

**Other requirements**
None

2.3 Other hazards

The product is not persistent, bioaccumulative and toxic chemical substance or very persistent and very bioaccumulative chemical substance according to the criteria set out in Annex XIII to the EC (PBT, vPvB). Flammable liquid: The risk of fire occurs in the event of overheating above the temperature of the fire point. Hot asphalt burns present the main risk. The inhalation of vapors may cause nausea. Causes contamination of both surface and ground water and soil during accidental release.
SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Identification No.</th>
<th>Substance name</th>
<th>Subst. content in the product (%)</th>
<th>Classification according to 1272/2008 (CLP)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES: 265-196-4</td>
<td>Bitumen oxidized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64742-93-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration No:</td>
<td></td>
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</tr>
<tr>
<td>01-2119498270:36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Full texts of H-phrases are quoted in Section 16*

3.2 Mixtures

The product is not a mixture.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

If the first aid treatment is to be administered, release tight clothing and keep the exposed person warm and at rest. If conscious, place the exposed person to the stabilised position and get prompt medical attention. If the exposed person is unconscious and not breathing, provide for free respiratory passages and artificial respiration. In case of cardiac arrest, apply cardiac massage and call medical assistance immediately. If unconscious but breathing, place the exposed person to the stabilised position and call medical assistance immediately.

**The first aid instructions are structured according to separate exposure ways:**

**Inhalation:** If a person has breathed in smoke produced by overheated asphalt, take him to the fresh air.

**Skin contact:** Areas hurt with hot asphalt must be cooled, ideally with water. The cooled asphalt must not be removed from the skin in order not to disturb created blisters. Remove the asphalt only in the event that the eyes or ears have been affected. Seek medical aid.

**Contact with eyes:** Remove the asphalt by means of Vaseline, Vaseline oil or another grease; never use solvents. Take the person to a doctor.

**Ingestion:** Never induce vomiting, seek medical aid.

4.2 Most important symptoms and effects, both acute and delayed

None

4.3 Indication of any immediate medical attention and special treatment needed

**Ingestion and inhalation:** If swallowed or inhaled, the product may cause serious damage of lungs. Do not induce vomiting. Contraindications: induced vomiting and gastric irrigation. Administration of medicinal charcoal has no effect. The affected person must be monitored at least for the period of 48 to 72 hours. Monitoring for pulmonary oedema symptoms starts six hours after the ingestion/inhalation and it continues at least for the period of 48 to 72 hours.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

**Suitable extinguishing means:** Heavy, medium and light air-mechanical foam, type B or C fire-extinguishing powders.

**Unsuitable extinguishing means:** Water jet (for cooling only).

5.2 Special hazards arising from the substance or mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide. Explosive mixtures with air are formed.

5.3 Advice for firefighters

Fire-fighting teams exposed to smoke or vapours must wear respiratory and eye protection. In confined spaces, the teams must use a self-contained breathing apparatus.
SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Prevent the contamination of clothes and shoes with the product as well as contact with the skin and eyes. Use suitable protective clothes and if contaminated, replace the clothes as soon as possible. Take care of the sufficient ventilation of the affected area. Smoking is prohibited. Remove all potential sources if ignition. All persons who do not participate in rescue operations must be requested to stay at a safe distance.

6.2 Environmental precautions
Prevent the spread of the released substance as well as the contamination of the sewerage, underground and surface water and soil, ideally by marking off the possible spread area. In the case of release, notify relevant authorities.

6.3 Methods and material for containment and cleaning up
If the product gets spilt, mix it with chemical stoneware and process the mixture in a suitable way, or mix it with gravel, sand or soil, letting the mixture solidify; to be liquidated in approved dumpsites in accordance with Act No. 185/2001 Coll., the Waste Act.

6.4 Reference to other sections
Apart from the instruction set out in this Section, other important information is shown in section 8 - EXPOSURE CONTROLS AND SECTION 13 – DISPOSAL CONSIDERATIONS.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
When used directly, the asphalt is melted to a drawing temperature and processed ac respective technological regulations. If the asphalt is overheated and smoke is produced, seal off the air supply and let the material cool to a safe temperature below 220 °C.

7.2 Conditions for safe storage, including any incompatibilities
Storage is subject to the provisions according to ČSN 65 0201. To be stored in properly sealed containers, or in containers designed for the storage of asphalts; to be heated indirectly.

7.3 Specific end use(s)
Bitumen is suitable for use in the construction and maintenance of roads, airfields and other trafficked areas. They are designed to prepare cast asphalt and asphalt mixtures with high modulus of rigidity.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
The mixture contains substances for which exposure limits are set for the working environment (according to Government Regulation 361/2007).

PEL total hydrocarbons: 5 mg/m³
NPK-P total hydrocarbons: 10 mg/m³
Inhalation: long-term exposure: occupational DNEL (inhalation) intermittent = 2.9 mg/m³/8 h
General population DNEL (inhalation) intermittent = 0.6 mg/m³/24 h

8.2 Exposure controls
Observe general safety and hygienic measures; do not eat, drink and smoke at work. After washing the skin with warm water and soap, treat it preventively with a regeneration cream.

Eye/face protection: Use protective goggles or safety eyewear (face shield).
Skin protection: Use protective gloves resistant against oil products and tested according to EN 374; best of all made of nitrile or neoprene rubber.
Respiratory protection: For manual applications of hot product in construction (e.g. brushing and rolling) or if worker exposure is likely to exceed workplace exposure limit, wear respiratory protection conforming to EN 140 with type A/P2 filter or better.
Thermal hazard: None

Environmental exposure controls: It is necessary to prevent leakage into the environment by all available means.
SAFETY DATA SHEET

Product name: Hard paving bitumen 10/20
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance:
- State: solid mass at 20 °C
- Colour: black
- Odour: asphalt
- Odour threshold value: not determined
- pH: no determination necessary
- Softening point: 60 - 80 °C
- Initial boiling point and boiling range: > 308 °C
- Flash point: > 280 °C
- Vaporisation rate: not determined
- Flammability: IV. Class
- Upper/lower explosion or flammability limits: none
- Vapour pressure: < 10 Pa at 20 °C
- Relative density: 1 000 kg/m³ at 15 °C
- Solubility: insoluble in water
- Separation factor: n-octanol/water: not determined
- Decomposition temperature: > 380 °C
- Viscosity: inf. 122 to 333 mPa·s at 180 °C
- Explosive properties: not explosive; vapours mixed with air may form explosive mixtures
- Oxidation properties: not oxidising

9.2 Other information
- Combustion point: > 300 °C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No reactivity danger exists.
10.2 Chemical stability: Stable under recommended storage and handling conditions.
10.3 Possibility of hazardous reactions: No dangerous reactions are possible.
10.4 Conditions to avoid: Creation of concentrations within the explosion limits, presence of ignition sources and contact with a naked flame.
10.5 Incompatible materials: Strong oxidisers.
10.6 Hazardous decomposition products: Under normal conditions: none; if burning under deficiency of air, carbon monoxide may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
- Acute toxicity:
  - oral toxicity (rat) LD₅₀ > 5 000 mg/kg (OECD TG 401)
  - dermal toxicity (rabbit) LD₅₀ > 2 000 mg/kg (OECD TG 402)
- Chronic toxicity: it is not known
- Skin corrosion / irritation: OECD TG 405 test results proved no skin irritation
- Serious eye damage / irritation: OECD TG 405 test results proved no eye irritation
- Respiratory or skin sensitization: the respiratory organ sensitisation data are missing, but no such sensitisation is expected. As regards the sensitisation by skin contact, OECD TG 406 tests were made and no sensitisation proved
- Germ cell mutagenicity: data is missing
- Carcinogenicity: Carcinogenic activity induced by repeated dermal irritation can be avoided by minimiz-
SAFETY DATA SHEET


Product name: Hard paving bitumen 10/20
Date of issue: 23. 01. 2017
Revision date: 04. 12. 2017 (Version 1.1)

ing contact with the skin.
Reproductive toxicity: data is missing.
STOT – single exposure: not determined
STOT – repeated exposure: not determined
Aspiration hazard: none

SECTION 12: ECOLOGICAL INFORMATION

Based on acute toxicity of invertebrates and algae, the product is not classified as toxic to the environment.

12.1 Toxicity

Acute toxicity for aquatic environment: fish - LL₅₀ (96 hrs) > 1000 mg/l
algae EL₅₀ (72 hrs) ≥ 1000 mg/l
invertebrates EL₅₀ (48 hrs) > 1000 mg/l

Chronic toxicity for aquatic environment: invertebrates NOELR (21 days) > 1000 mg/l
Toxicity for soil microorganisms and for soil macroorganisms: LL₅₀ (48 h) > 1000 mg/l (QSAR), NOEL > 1000 mg/l

12.2 Persistence and degradability: Not expected – the substance is not soluble in water.

12.3 Bioaccumulative potential: Not expected – the substance is biodegradable.

12.4 Mobility in soil: Not expected - the substance is biodegradable.

12.5 Results of PBT and vPvB assessment: The product does not contain substances meeting the criteria for PBT or vPvB in accordance with Annex XIII, Regulation (EC) No 1907/2006 (REACH), as amended.

12.6 Other adverse effects: None

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Substance disposal procedures: Waste, impaired product or unused/surplus product must be handed over to the person authorised for waste disposal according to the provisions of Act No. 185/2001 Coll., on Waste, as amended later, for the purposes of further use or disposal (according to the manufacturer’s recommendations).

Waste Code: O 05 01 17, in sorbent: N 15 02 02

Contaminated packaging disposal procedures: The containers with product residua must be placed on the place specified by the municipal authorities or handed over to the person authorised for waste disposal.


SECTION 14: TRANSPORT INFORMATION

Nomenclature and labelling according to the European Agreement concerning the International Carriage of Dangerous Goods, Road (ADR)/Rail (RID).
If transported at a temperature over 100 °C, the following classification applies:

14.1 UN Number: 3257

14.2 UN proper shipping name: Heated. Liquid substance – alternative name (asphalt)

14.3 Transport hazard class(es): 9
Classification code: M9
Danger Identification No.: 99
Safety mark: 9
SAFETY DATA SHEET


Product name: Hard paving bitumen 10/20
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14.4 Packing group: III

14.5 Environmental hazards: none

14.6 Special precautions for user:
Transport category: 3
Limited quantity: 0

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: not applicable

SECTION 15: REGULATORY INFORMATION

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

✓ Act on Clean Air Protection, as amended later, incl. connected regulations and rules.
The product does not represent a volatile organic substance pursuant to Act on Clean Air Protection, as amended and relevant regulations of the Ministry of Environment.
✓ ČSN 65 0201 Flammable Liquids – manufacturing, storage and handling premises
According to ČSN 65 0201, the product is classified in the IV Flammability Class.
✓ ČSN 33 0371 Inexplosive electrical installation – Explosive mixtures – Classification and methods of testing
According to ČSN 33 077, the product is classified in the T2 Thermal Class and IIA Explosive Class.
✓ Government Regulation No. 361/2007 Coll., by which the conditions of occupational health and safety are stipulated, as amended later.
✓ ČSN 75 3415 Protection of water against oil products. Premises for oil product handling and storage.
✓ Act No. 350/2011 Coll., on chemical substances and chemical mixtures, and on amendments of some acts.
✓ Act No. 111/1994 Coll., on road transport, as amended later, incl. connected regulations and rules (ADR)
✓ Act No. 266/94 Coll., on railways, as amended later, incl. connected regulations and rules (RID)
✓ Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures

15.2 Chemical safety assessment
The chemical safety assessment has been made.

SECTION 16: OTHER INFORMATION

Standard safety phrases: H-phrases
None

Safe handling instructions: P-phrases
P280 Wear protective gloves/protective clothing/eye protection

Other information important for the safety and health of humans
The product must not be used for any purpose other than those specified in sections 1 and 7 without the manufacturer's / importer's specific consent. The user is responsible for compliance with all relevant health protection regulations.

Training
The user is obliged to get acquainted with the safety precautions relating to the product handling / treatment and complete applicable trainings at the workplace before he/she starts to work with the product.

Information on changes
✓ New SDS.
✓ The change (version 1.1) – art. 1.2, 1.3, 2.2, 3.2, 4, 8.1, 9.1, 11, 12, 14, 15.1, 16.

Statement: The Safety Data Sheet has been prepared in accordance with REACH Regulation (EC) No 1907/2006. It contains the data that are needed to ensure safety and health at work and environmental protection. These data do not replace the quality specification and cannot be considered as a guarantee of the suitability and usability of this product for a specific application. These data correspond to the current state of knowledge and experience and are in accordance with our valid legal regulations. The customer is responsible for compliance with the applicable regional legislation.