



Material Safety Data Sheet (MSDS)

Bitumen 40/50

1. Product Identification

Product Name: Bitumen 40/50

Product Type: Penetration Grade Bitumen

Recommended Use: Road construction, asphalt production, airport pavements, industrial roads, waterproofing applications.

2. Hazard Identification

Bitumen 40/50 is generally not hazardous at ambient temperature. However, when heated for application, it can cause serious burns and release fumes.

Main Hazards

- Hot product causes severe skin burns.
- Heated vapors may irritate the eyes and respiratory system.
- Spilled hot bitumen creates slipping hazards.
- Burning bitumen may produce toxic gases such as carbon monoxide and sulfur oxides.

3. Composition / Information on Ingredients

Component	CAS Number	Content
Petroleum Bitumen	8052-42-4	>99%

4. First Aid Measures

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes. Seek medical attention.

Skin Contact

Cold Material: Wash with soap and water.

Hot Material: Do not remove bitumen from the skin. Cool immediately with plenty of cold water and obtain medical attention.

Inhalation

Move the affected person to fresh air. If breathing becomes difficult, seek medical assistance.

Ingestion

Do not induce vomiting. Rinse the mouth and obtain medical advice immediately.

5. Fire Fighting Measures

Suitable Extinguishing Media

- Dry chemical powder
- Carbon dioxide (CO₂)
- Foam
- Sand

Unsuitable Media

- Do not use a direct water jet on burning bitumen.



Hazardous Combustion Products

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- Sulfur oxides
- Dense black smoke

Firefighters should wear self-contained breathing apparatus (SCBA) and protective clothing.

6. Accidental Release Measures

- Allow hot material to cool and solidify.
- Collect solid material mechanically.
- Prevent product from entering drains, soil, or waterways.
- Wear suitable protective equipment during cleanup.

7. Handling and Storage

Handling

- Avoid breathing heated fumes.
- Avoid skin contact with hot material.
- Use proper ventilation during heating.
- Keep away from open flames.

Storage

- Store in tightly closed containers.
- Protect from water contamination.
- Keep away from strong oxidizing agents.
- Store in a cool, dry, well-ventilated area.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Eye Protection

- Safety goggles or face shield

Hand Protection

- Heat-resistant gloves

Body Protection

- Long-sleeved protective clothing
- Safety boots

Respiratory Protection

- Use respiratory protection when ventilation is insufficient or fumes are excessive.

9. Physical and Chemical Properties

Property	Value
Appearance	Black solid or semi-solid
Odor	Mild petroleum odor
Penetration	40–50 dmm



Property	Value
Softening Point	Approximately 50–58°C
Solubility in Water	Insoluble
Flash Point	>230°C
Density (25°C)	Approximately 1.01–1.06 g/cm ³

10. Stability and Reactivity

Stability

Stable under normal storage conditions.

Conditions to Avoid

- Excessive heating
- Strong oxidizing agents
- Open flames

Hazardous Decomposition

High temperatures may generate carbon monoxide, sulfur oxides, and irritating fumes.

11. Toxicological Information

- Low toxicity under normal conditions.
- Heated fumes may irritate the nose, throat, and lungs.
- Hot product causes severe thermal burns.
- Prolonged skin contact may cause irritation.

12. Ecological Information

- Insoluble in water.
- Avoid release into rivers, lakes, and drainage systems.
- May persist in the environment if improperly disposed of.

13. Disposal Considerations

Dispose of unused material according to local environmental regulations. Recycle containers where possible. Do not discharge into waterways or public drains.

14. Transport Information

UN Number: Not classified as dangerous goods when transported at ambient temperature.

Transport Conditions

- Transport in drums, jumbo bags, bitutainers, or bulk tankers.
- If transported hot, follow local regulations for elevated-temperature materials.

15. Regulatory Information

Bitumen 40/50 should be handled in accordance with applicable local, national, and international safety and environmental regulations.

16. Other Information



This MSDS provides general safety guidance for the handling, storage, transportation, and use of **Bitumen 40/50**. Users should ensure safe working practices and comply with all applicable regulations. The information is believed to be accurate but is provided without warranty and should be verified for specific operating conditions.

