



Material Safety Data Sheet (MSDS)

Bitumen 120/150

Section 1: Product Identification

Product Name: Bitumen 120/150

Product Type: Penetration Grade Bitumen

Synonyms: Asphalt Binder 120/150, Petroleum Bitumen 120/150, Paving Grade Bitumen

Recommended Use: Road construction, asphalt production, pavement surfacing, waterproofing, industrial applications.

Section 2: Hazard Identification

GHS Classification

Bitumen 120/150 is generally **not classified as hazardous** in its solid or ambient-temperature state.

Hazards

- Hot molten bitumen can cause severe thermal burns.
- Heated product may release irritating fumes.
- Vapors generated during heating may irritate the eyes and respiratory system.
- Contact with hot material may result in serious skin injury.
- Slippery when spilled.

Precautionary Statements

- Avoid breathing fumes generated during heating.
- Wear suitable protective equipment.
- Prevent contact with molten material.
- Use adequate ventilation during handling.

Section 3: Composition / Information on Ingredients

Component	CAS Number	Concentration
Petroleum Bitumen	8052-42-4	>99%
Trace Mineral Components	Proprietary	<1%

Section 4: First Aid Measures

Eye Contact

- Cool immediately with clean water for at least 15 minutes.
- Do not attempt to remove solidified bitumen.
- Seek immediate medical attention.

Skin Contact

- For hot bitumen burns, cool immediately with plenty of cold water.
- Do not peel hardened bitumen from the skin.
- Cover with a sterile dressing and obtain medical assistance.

Inhalation

- Move the affected person to fresh air.



- If breathing difficulties occur, seek medical attention.

Ingestion

- Ingestion is unlikely during normal industrial use.
- Do not induce vomiting.
- Obtain medical advice immediately.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

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

Unsuitable Media

- Do not use direct water jets on burning bitumen.

Hazardous Combustion Products

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- Sulfur oxides
- Smoke and hydrocarbons

Protective Equipment

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

Section 6: Accidental Release Measures

- Allow hot material to cool before collection.
- Prevent entry into drains or waterways.
- Collect hardened material mechanically.
- Clean affected area carefully due to slip hazard.

Section 7: Handling and Storage

Handling

- Avoid overheating.
- Maintain recommended handling temperatures.
- Prevent prolonged inhalation of fumes.
- Wear heat-resistant PPE.

Storage

- Store in tightly closed containers or insulated tanks.
- Keep away from strong oxidizing agents.
- Protect from contamination and water.
- Avoid prolonged overheating.

Section 8: Exposure Controls / Personal Protection

Engineering Controls

- Local exhaust ventilation where fumes are generated.



- Good workplace ventilation.

Personal Protective Equipment

Eye Protection

- Chemical safety goggles
- Face shield when handling molten bitumen

Hand Protection

- Heat-resistant gloves

Body Protection

- Long-sleeved protective clothing
- Heat-resistant boots

Respiratory Protection

- Respirator if ventilation is inadequate.

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Black solid or semi-solid
Odor	Mild petroleum odor
Penetration Grade	120–150 dmm
Softening Point	Typically 38–46°C
Density @25°C	Approximately 1.00–1.06 g/cm ³
Solubility in Water	Insoluble
Flash Point	>230°C
Auto-Ignition Temperature	>300°C
Boiling Point	Not applicable
Vapor Pressure	Negligible at ambient temperature

Section 10: Stability and Reactivity

Stability

Stable under recommended storage conditions.

Conditions to Avoid

- Excessive heating
- Open flames
- Strong oxidizing agents

Hazardous Decomposition Products

- Carbon monoxide
- Carbon dioxide
- Sulfur oxides
- Hydrocarbon fumes

Section 11: Toxicological Information

Likely Routes of Exposure





- Skin contact
- Eye contact
- Inhalation of heated fumes

Acute Effects

- Thermal burns
- Eye irritation
- Respiratory irritation from fumes

Chronic Effects

Repeated exposure to excessive fumes may cause respiratory discomfort.

Carcinogenicity

Bitumen itself is not generally classified as carcinogenic; however, prolonged occupational exposure to bitumen fumes generated at high temperatures should be minimized.

Section 12: Ecological Information

- Insoluble in water.
- Avoid uncontrolled release into the environment.
- Not readily biodegradable.
- May persist in soil if improperly disposed.

Section 13: Disposal Considerations

Dispose of waste material according to applicable local, national, and international regulations.
Recycle or recover bitumen where practical.
Do not discharge into drains, soil, or natural waterways.

Section 14: Transport Information

Item	Information
UN Number	Not regulated (solid product)
Proper Shipping Name	Bitumen 120/150
Hazard Class	Not classified as dangerous goods under normal transport conditions
Packing Group	Not applicable

Note: Molten bitumen transported at elevated temperatures may be subject to transport regulations depending on the applicable jurisdiction.

Section 15: Regulatory Information

Bitumen 120/150 should be handled in accordance with applicable local occupational health, environmental, and transportation regulations.
Consult national regulations for workplace exposure limits and transport requirements.

Section 16: Other Information**Recommended Applications**

- Road construction
- Highway paving



- Asphalt concrete production
- Pavement maintenance
- Industrial paving
- Infrastructure projects

Storage Temperature

Maintain only the minimum temperature necessary for pumping and handling to reduce fume generation.