



Material Safety Data Sheet (MSDS)

Bitumen Penetration Grade 60/70

SECTION 1: Identification

Product Name: Bitumen Penetration Grade 60/70

Synonyms: Asphalt Binder 60/70, Asphalt Cement 60/70, Petroleum Bitumen 60/70

CAS Number: 8052-42-4

EC Number: 232-490-9

UN Number: Not regulated (solid). UN 3257 (when transported hot/molten, if applicable).

Recommended Use: Road construction, asphalt paving, roofing, waterproofing, industrial applications.

SECTION 2: Hazard Identification

GHS Classification

At ambient temperature:

- Not classified as hazardous.

When heated:

- Causes severe thermal burns.
- Hot vapors may irritate respiratory system.
- Prolonged exposure to fumes may cause eye and respiratory irritation.

Signal Word

Warning

Hazard Statements

- Heated material causes severe burns.
- Vapors generated during heating may irritate eyes, skin, and respiratory tract.
- Hydrogen sulfide (H₂S) may accumulate in storage tanks and confined spaces.

Precautionary Statements

- Avoid breathing fumes.
- Wear protective clothing.
- Use adequate ventilation.
- Avoid contact with molten material.
- Wash thoroughly after handling.

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration
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Petroleum Bitumen	8052-42-4	100%
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Contains complex hydrocarbons derived from petroleum refining.

SECTION 4: First Aid Measures

Eye Contact

Cold Product

- Flush with clean water.
- Seek medical attention if irritation persists.

Hot Product

- Flush immediately with plenty of cold water.



- Do NOT remove adhered bitumen.
- Obtain immediate medical treatment.

Skin Contact

Cold Product

- Wash with soap and water.

Hot Product

- Cool immediately using cold water.
- Do not peel off solidified bitumen.
- Cover with sterile dressing.
- Seek urgent medical attention.

Inhalation

- Move victim to fresh air.
- Keep comfortable.
- If breathing difficulties occur, obtain medical assistance.

Ingestion

- Do not induce vomiting.
- Rinse mouth.
- Seek medical attention.

SECTION 5: Fire Fighting Measures

Suitable Extinguishing Media

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

Unsuitable Media

- Direct water jet

Hazardous Combustion Products

- Carbon monoxide
- Carbon dioxide
- Sulfur oxides
- Nitrogen oxides
- Smoke
- Hydrocarbon vapors

Protective Equipment

- Self-contained breathing apparatus (SCBA)
- Full protective clothing

SECTION 6: Accidental Release Measures

Personal Precautions

- Wear protective equipment.
- Eliminate ignition sources.
- Ensure adequate ventilation.

Environmental Precautions



- Prevent entry into waterways and drains.

Cleanup Methods

Cold product:

- Collect mechanically.

Molten product:

- Allow to cool and solidify before removal.

Dispose according to local regulations.

SECTION 7: Handling and Storage

Handling

- Avoid overheating.
- Avoid breathing fumes.
- Prevent skin contact.
- Use only in well-ventilated areas.
- Avoid water contamination of hot bitumen.

Storage

- Store in dry, well-ventilated tanks.
- Protect from moisture.
- Recommended storage temperature:
140–170°C
- Keep away from oxidizing agents.

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure

No specific exposure limit established for bitumen.

Engineering Controls

- Local exhaust ventilation
- Good general ventilation

Personal Protective Equipment

Eyes

- Chemical safety goggles
- Face shield for molten material

Hands

- Heat-resistant gloves

Body

- Long sleeves
- Heat-resistant clothing
- Safety boots

Respiratory

Normally not required.

When fumes exceed occupational exposure limits:

- Organic vapor respirator
 - Air-supplied respirator where necessary
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**SECTION 9: Physical and Chemical Properties**

Property	Value
Appearance	Black solid/semi-solid
Odor	Mild petroleum odor
Color	Black
Softening Point	49–56°C
Penetration @25°C	60–70 dmm
Flash Point	>230°C
Density @25°C	1.01–1.06 g/cm³
Solubility in Water	Insoluble
Boiling Point	Not applicable
Vapor Pressure	Negligible at ambient temperature
Auto-ignition Temperature	Approximately 370°C

SECTION 10: Stability and Reactivity**Chemical Stability**

Stable under recommended storage conditions.

Conditions to Avoid

- Excessive heating
- Open flames
- Water contact with molten bitumen

Incompatible Materials

- Strong oxidizing agents

Hazardous Decomposition Products

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

SECTION 11: Toxicological Information**Likely Routes of Exposure**

- Skin contact
- Eye contact
- Inhalation of fumes

Acute Effects

- Thermal burns
- Eye irritation
- Respiratory irritation

Chronic Effects

Long-term repeated exposure to excessive bitumen fumes may affect the respiratory system.

Carcinogenicity



Bitumen itself is not classified as carcinogenic under normal use. Prolonged exposure to high concentrations of bitumen fumes during hot application may present occupational health risks.

SECTION 12: Ecological Information

Ecotoxicity

Expected to present low environmental toxicity.

Persistence

Slowly biodegradable.

Mobility

Insoluble in water.

Bioaccumulation

Low potential.

Avoid release into soil and waterways.

SECTION 13: Disposal Considerations

Dispose of product, residues, and contaminated packaging in accordance with local, regional, and national regulations.

Do not discharge into drains or watercourses.

SECTION 14: Transport Information

ADR/RID

Not regulated when transported as solid.

Hot Liquid Transport

UN Number: UN 3257

Proper Shipping Name:

Elevated Temperature Liquid, N.O.S. (Bitumen)

Hazard Class: 9

Packing Group: III

Transport in insulated tanks suitable for elevated temperatures.

SECTION 15: Regulatory Information

This product should be handled in accordance with applicable occupational health, safety, transportation, and environmental regulations.

Refer to local regulations for specific compliance requirements.

SECTION 16: Other Information

Typical Applications

- Road construction
- Asphalt pavement
- Highways
- Airport runways
- Roofing
- Waterproofing
- Industrial flooring
- Bridge decks



- Asphalt mixtures
- Maintenance and repair works

Revision

Version: 1.0

Revision Date: (Insert Date)

Disclaimer: The information in this MSDS is based on current knowledge and is intended to describe the product for health, safety, and environmental requirements only. It does not constitute a guarantee of specific product properties or suitability for any particular application. Users are responsible for ensuring compliance with all applicable laws and regulations.