



Material Safety Data Sheet (MSDS) – PG 64-16 Bitumen

SECTION 1: Product Identification

Product Name	PG 64-16 Bitumen
Product Type	Performance Grade Asphalt Binder
Synonyms	PG 64-16 asphalt binder, PG64-16 asphalt, Performance Grade Bitumen PG 64-16
Recommended Use	Asphalt pavement, highway paving, hot mix asphalt production, road construction
Chemical Family	Petroleum Asphalt
Product Form	Semi-solid / viscous liquid when heated

SECTION 2: Hazard Identification

GHS Classification

PG 64-16 bitumen generally presents low hazard risk at ambient temperature. However, heated material may cause thermal burns and release irritating fumes during handling and application.

Hazards

- Hot material may cause severe skin burns
- Asphalt fumes may irritate eyes and respiratory system
- Prolonged fume exposure may cause discomfort
- Slippery surfaces may develop after spills

Signal Word

Warning

Hazard Statements

- Heated asphalt may cause severe thermal burns
- Vapors and fumes may irritate respiratory passages
- Contact with hot product may damage skin and eyes



Precautionary Statements

- Wear protective clothing and gloves
- Avoid breathing asphalt fumes
- Use proper ventilation during heating
- Prevent direct contact with hot material
- Keep away from strong oxidizing agents

SECTION 3: Composition / Information on Ingredients

Component	CAS Number	Typical Concentration
Petroleum Asphalt	8052-42-4	>99%
Additives / Modifiers (if applicable)	Proprietary	<1%

This product may contain trace naturally occurring hydrocarbons associated with petroleum refining.

SECTION 4: First Aid Measures

Eye Contact

Immediately flush eyes with clean water for at least 15 minutes. Remove contact lenses if present and easy to remove. Seek medical attention immediately if hot material contacts the eyes.

Skin Contact

Cold Material

Wash affected area with soap and water.

Hot Material

Cool affected area immediately with cold water. Do not attempt to remove solidified asphalt from burned skin. Seek medical attention promptly.



Inhalation

Move affected person to fresh air immediately. If breathing difficulties continue, seek medical attention.

Ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Seek medical advice immediately.

SECTION 5: Fire Fighting Measures

Suitable Extinguishing Media

- Foam
- Dry chemical powder
- Carbon dioxide (CO₂)
- Water fog

Unsuitable Extinguishing Media

Do not use direct water streams on hot bitumen fires.

Specific Hazards

Combustion may produce:

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

Protective Equipment for Firefighters

Firefighters should wear:

- Self-contained breathing apparatus (SCBA)
- Full protective clothing
- Heat-resistant gloves



SECTION 6: Accidental Release Measures

Personal Precautions

- Restrict access to spill area
- Wear protective equipment
- Avoid contact with hot material
- Ensure proper ventilation

Environmental Precautions

Prevent material from entering:

- Drains
- Waterways
- Soil
- Sewage systems

Cleanup Procedures

Cold Material

Collect mechanically and place in suitable containers.

Hot Material

Allow material to cool and solidify before removal.

Use absorbent materials if necessary.

SECTION 7: Handling and Storage

Handling

- Avoid overheating
- Minimize fume generation
- Use proper ventilation systems
- Wear appropriate PPE
- Avoid skin and eye contact



Storage

Store product in:

- Clean insulated tanks
- Dry and ventilated areas
- Properly labeled containers

Recommended Storage Temperature

150°C – 170°C

Storage Precautions

- Prevent water contamination
- Avoid excessive heating
- Keep away from oxidizing materials

SECTION 8: Exposure Controls / Personal Protection

Engineering Controls

- Local exhaust ventilation
- Fume extraction systems
- Temperature monitoring systems

Personal Protective Equipment (PPE)

Eye Protection

- Safety goggles
- Face shield

Skin Protection

- Heat-resistant gloves
- Protective clothing
- Safety boots



Respiratory Protection

Use respiratory protection if ventilation remains insufficient.

SECTION 9: Physical and Chemical Properties

Property	Value
Appearance	Black semi-solid
Odor	Petroleum odor
Physical State	Semi-solid / liquid when heated
Flash Point	>230°C
Density @ 25°C	1.01–1.06 g/cm ³
Solubility in Water	Insoluble
Softening Characteristics	Temperature dependent
Boiling Point	Not applicable
Vapor Pressure	Low at ambient temperature
Auto-Ignition Temperature	>300°C

SECTION 10: Stability and Reactivity

Chemical Stability

Product remains stable under recommended storage and handling conditions.

Conditions to Avoid

- Excessive heat
- Open flames
- Oxidizing agents
- Water contamination in hot material

Incompatible Materials

- Strong oxidizers
- Reactive chemicals



Hazardous Decomposition Products

Thermal decomposition may produce:

- Carbon monoxide
- Carbon dioxide
- Sulfur compounds
- Hydrocarbon vapors

SECTION 11: Toxicological Information

Likely Routes of Exposure

- Skin contact
- Eye contact
- Inhalation of fumes

Acute Effects

Skin Contact

Hot material may cause severe thermal burns.

Eye Contact

Fumes and splashes may irritate or damage eyes.

Inhalation

Excessive exposure to fumes may irritate respiratory system.

Chronic Effects

Repeated long-term exposure to asphalt fumes may cause irritation and discomfort.



SECTION 12: Ecological Information

Environmental Impact

PG 64-16 bitumen generally shows low mobility in soil and water because of its semi-solid nature.

Ecotoxicity

Avoid uncontrolled release into the environment.

Persistence and Degradability

Bitumen degrades slowly under environmental conditions.

SECTION 13: Disposal Considerations

Dispose of waste material according to local environmental regulations.

Recommended Disposal Methods

- Approved industrial waste disposal
- Asphalt recycling programs
- Authorized waste management facilities

Do not discharge into waterways or sewage systems.

SECTION 14: Transport Information

Transport Category	Information
UN Number	Not regulated under ambient conditions
Proper Shipping Name	Asphalt / Bitumen
Hazard Class	May classify as elevated temperature material when heated
Packing Group	Not applicable
Marine Pollutant	No
Transport Conditions	Use insulated heated tankers



SECTION 15: Regulatory Information

This product may fall under local, national, and international regulations related to petroleum products and industrial materials.

Applicable Standards

- AASHTO M320
- ASTM Standards
- Occupational safety regulations
- Environmental protection regulations

Users should comply with all applicable regional regulations.

SECTION 16: Other Information

Recommended Uses

- Asphalt pavement
- Road construction
- Highway paving
- Hot mix asphalt production
- Infrastructure development

Training Advice

Operators should receive training regarding:

- Hot asphalt handling
- Burn prevention
- Emergency procedures
- Safe storage practices