



Material Safety Data Sheet (MSDS)

Viscosity Grade Bitumen VG 10

Product Name: Viscosity Grade Bitumen VG 10

Product Type: Petroleum Asphalt Binder / Road Construction Bitumen

Chemical Family: Petroleum Hydrocarbon Residue

Recommended Use: Asphalt production, road paving, infrastructure construction, and industrial applications

1. Identification of the Substance and Supplier

Product Identifier

Commercial Name: Viscosity Grade Bitumen VG 10

Synonyms:

- VG 10 Bitumen
- Road Grade Bitumen VG 10
- Paving Grade Bitumen VG 10
- Asphalt Binder VG 10

Recommended Applications

VG 10 Bitumen is used as a binding material in asphalt mixtures for:

- Highway construction
- Road paving
- Asphalt pavement production
- Industrial road projects
- Infrastructure development

Restrictions on Use

Use only for approved industrial applications. Avoid unauthorized handling, heating, or processing without proper safety procedures.



2. Hazard Identification

Classification

Viscosity Grade Bitumen VG 10 is a petroleum-derived material that requires careful handling, especially when heated.

Main Hazards

Hot Product Hazards

- Heated bitumen can cause severe thermal burns.
- Hot material may release fumes that can irritate the respiratory system.
- Contact with molten bitumen can cause skin injury.

Fume Exposure

During heating, bitumen may release vapors containing petroleum hydrocarbons. Therefore, workers should avoid prolonged exposure without proper ventilation.

Environmental Hazards

Avoid uncontrolled release into soil, drainage systems, and water sources.

3. Composition and Information on Ingredients

Component	Approximate Content
Petroleum Asphalt	Major component
Hydrocarbon Compounds	Present in complex mixture
Trace Organic Compounds	Small quantities

Note: The exact composition may vary depending on crude source and manufacturing process.



4. First Aid Measures

Skin Contact

- Cool affected area with clean water if hot bitumen contacts skin.
- Do not attempt to remove solidified bitumen forcefully.
- Seek medical attention for burns or serious injuries.

Eye Contact

- Immediately flush eyes with clean water.
- Remove contact lenses if possible.
- Obtain medical advice if irritation continues.

Inhalation

- Move the affected person to fresh air.
- Keep the person comfortable.
- Seek medical assistance if breathing difficulties occur.

Ingestion

- Do not induce vomiting.
- Seek medical advice if accidental ingestion occurs.

5. Fire Fighting Measures

Fire Hazards

VG 10 Bitumen is combustible when heated to high temperatures.

Suitable Extinguishing Media

Use:

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



Unsuitable Extinguishing Media

Avoid direct water streams on hot bitumen because rapid cooling may cause dangerous splashing.

Firefighter Protection

Firefighters should wear:

- Protective clothing
- Self-contained breathing apparatus
- Heat-resistant equipment

6. Accidental Release Measures

Personal Precautions

- Wear suitable protective equipment.
- Avoid direct contact with spilled material.
- Keep unnecessary personnel away.

Environmental Precautions

Prevent entry into:

- Drainage systems
- Rivers
- Soil
- Water sources

Cleanup Methods

For hot spills:

- Allow material to cool and solidify.
- Collect using appropriate mechanical methods.
- Dispose of waste according to local regulations.



7. Handling and Storage

Safe Handling

When handling VG 10 Bitumen:

- Use appropriate protective equipment.
- Avoid skin contact with hot material.
- Maintain proper workplace ventilation.
- Follow industrial safety procedures.

Storage Conditions

Store VG 10 Bitumen:

- In suitable tanks, drums, or containers.
- Away from ignition sources.
- In dry and controlled storage areas.
- According to recommended temperature conditions.

Furthermore, proper storage helps maintain product quality and reduces handling risks.

8. Exposure Controls and Personal Protection

Engineering Controls

Provide:

- Adequate ventilation
- Fume extraction systems
- Temperature monitoring equipment

Personal Protective Equipment (PPE)

Hand Protection

Use:

- Heat-resistant gloves
- Protective hand coverings



Eye Protection

Use:

- Safety goggles
- Face shields when handling hot material

Skin Protection

Wear:

- Protective clothing
- Long sleeves
- Heat-resistant workwear

Respiratory Protection

Use suitable respiratory protection when working in areas with insufficient ventilation or elevated fumes.

9. Physical and Chemical Properties

Property	Information
Appearance	Black, viscous petroleum material
Physical State	Solid or semi-solid at ambient temperature
Color	Black
Odor	Petroleum asphalt odor
Solubility in Water	Insoluble
Density	Approximately 1.0–1.1 g/cm ³
Flash Point	Typically above 220°C
Viscosity	VG 10 classification based on viscosity performance



10. Stability and Reactivity

Stability

VG 10 Bitumen remains stable under normal storage and handling conditions.

Conditions to Avoid

Avoid:

- Excessive heating
- Open flames
- Strong oxidizing agents
- Uncontrolled temperature exposure

Hazardous Reactions

No hazardous reactions are expected during normal industrial use.

11. Toxicological Information

Health Effects

Skin Contact

Hot bitumen may cause serious burns.

Eye Contact

Hot material or fumes may cause irritation.

Inhalation

Extended exposure to fumes generated during heating may irritate the respiratory system.

Chronic Exposure

Long-term occupational exposure should be controlled through proper ventilation and safety practices.



12. Ecological Information

VG 10 Bitumen has very low water solubility. However, uncontrolled release may cause environmental contamination.

Recommended practices:

- Prevent spills.
- Avoid disposal into waterways.
- Follow local environmental regulations.

13. Disposal Considerations

Dispose of VG 10 Bitumen waste according to:

- Local environmental regulations
- Industrial waste management procedures
- Approved disposal methods

Do not discharge waste material into drainage systems or natural environments.

14. Transport Information

Transport Classification

VG 10 Bitumen transportation requirements depend on:

- Temperature condition
- Packaging method
- Country regulations

Common Transport Methods

- Steel drums
- Jumbo bags
- Bulk tankers
- Container shipment



Transport Precautions

- Secure packaging properly.
- Protect containers from damage.
- Follow international shipping requirements.

15. Regulatory Information

The product should be handled according to applicable:

- Occupational safety regulations
- Transportation regulations
- Environmental protection requirements
- Local chemical handling guidelines

Regulatory requirements may vary by destination country.

16. Other Information

Recommended Safety Practices

- Train workers before handling.
- Use appropriate PPE.
- Maintain workplace safety procedures.
- Follow supplier instructions.

Disclaimer

This MSDS provides general safety guidance for **Viscosity Grade Bitumen VG 10** handling and storage. Actual safety requirements may vary according to workplace conditions, regulations, packaging type, and customer requirements.

Users should review applicable local regulations and obtain the latest supplier-issued safety documentation before industrial use.