



Material Safety Data Sheet (MSDS)

Viscosity Grade (VG) Bitumen

Prepared in accordance with ISO 11014-1 and GHS standards

Section 1 – Identification of the Substance and Company

Product Name: Viscosity Grade Bitumen (VG Grades: VG-10, VG-20, VG-30, VG-40)

Chemical Name: Petroleum Asphalt

Chemical Family: Bituminous binder

Intended Use: Road paving, asphalt mixes for various climatic conditions, industrial waterproofing, roofing applications

Grades Available: VG-10, VG-20, VG-30, VG-40

Manufacturer / Supplier:

Basekim Kimyasal Ürünler LTD

Turan Gunes Bld., Ilkbahar Mah., Sinpas Altinoran Tower 2, Floor 1, Unit 146

Ankara, Turkey

Contact Numbers:

- Technical Inquiries: +90 312 514 7055
- Logistics: 88552948
- Emergency (Health & Safety): +90 312 514 7081 (International collect calls accepted)

Section 2 – Composition / Ingredient Information

| <u>Component</u> | <u>CAS Number</u> | <u>Concentration Range</u> |
|--------------------------|-------------------|----------------------------|
| <u>Petroleum Bitumen</u> | <u>8052-42-4</u> | <u>100%</u> |



Section 3 – Hazard Identification

Appearance: Black, semi-solid material with mild petroleum odor

Hazards:

- Contact with hot bitumen can cause severe thermal burns
- Heated vapors may irritate the eyes, skin, and respiratory tract
- Contains trace polycyclic aromatic hydrocarbons (PAHs) – possible long-term health hazard from repeated fume inhalation

GHS Classification:

- Not classified as hazardous in solid/cold form
- Skin Burns/Thermal Injury – Category 2 (when heated)
- Specific Target Organ Toxicity – Repeated Exposure – Category 2 (respiratory system, from prolonged inhalation of fumes)

Section 4 – First Aid Measures

Exposure Route

Immediate Action

| | |
|---------------------|---|
| <u>Eye Contact</u> | <u>Flush with water for 15 minutes. For burns from hot material, seek immediate medical care.</u> |
| <u>Skin Contact</u> | <u>Cool affected area with water. Do not attempt to remove solidified bitumen from skin – obtain medical attention.</u> |
| <u>Inhalation</u> | <u>Move to fresh air. If symptoms persist, provide oxygen and get medical help.</u> |
| <u>Ingestion</u> | <u>Rinse mouth, do not induce vomiting. Seek medical advice if discomfort occurs.</u> |

Note to Physician: Treat burns as thermal injuries; support respiratory symptoms as necessary.

Section 5 – Firefighting Measures

- Flash Point: > 250°C
- Autoignition Temperature: ~ 450°C
- Suitable Extinguishing Media: Foam, dry chemical, CO₂
- Unsuitable Media: Direct water stream on molten bitumen
- Hazardous Decomposition Products: CO, CO₂, SO_x, and incomplete combustion hydrocarbons
- Protective Equipment: Firefighters should use self-contained breathing apparatus and heat-resistant protective clothing

Section 6 – Accidental Release Measures

- Isolate hazard area; allow hot material to cool before handling
- Prevent material from entering drains or watercourses
- Collect cooled solid material mechanically and dispose in accordance with regulations

Section 7 – Handling and Storage

Handling:

- Avoid skin and eye contact with hot material
- Use local ventilation when heating bitumen
- Do not heat above recommended temperature

Storage:

- Store in clean, dry, well-ventilated conditions away from ignition sources
- Keep containers tightly sealed when not in use

Section 8 – Exposure Controls / Personal



Protection

Occupational Exposure Limit (Bitumen Fume):

- ACGIH TLV: 0.5 mg/m³ (inhalable fraction, benzene-soluble aerosol)

Engineering Controls:

- Use local exhaust ventilation when heating

PPE:

- Eyes/Face: Safety glasses or face shield
- Skin: Heat-resistant gloves, protective clothing
- Respiratory: Organic vapor respirator if ventilation is inadequate

Section 9 – Physical & Chemical Properties

| Property | Value / Range |
|--------------------------------|--------------------------|
| <u>Appearance</u> | <u>Black, semi-solid</u> |
| <u>Odor</u> | <u>Mild petroleum</u> |
| <u>Specific Gravity @ 25°C</u> | <u>1.00 – 1.05</u> |
| <u>Flash Point (°C)</u> | <u>> 250</u> |
| <u>Boiling Range (°C)</u> | <u>> 400</u> |
| <u>Softening Point (°C)</u> | <u>Grade-specific</u> |



Viscosity @ 60°C

Grade-specific

Solubility in Water

Insoluble

Section 10 – Stability and Reactivity

- Stability: Stable under recommended handling and storage conditions
- Incompatibility: Strong oxidizing agents
- Hazardous Decomposition: Carbon monoxide, carbon dioxide, sulfur oxides, and hydrocarbons

Section 11 – Toxicological Information

- Acute Effects: Fume inhalation may cause mild respiratory irritation
- Chronic Effects: Long-term inhalation of fumes may affect respiratory system; PAHs in fumes are IARC Group 2B (possibly carcinogenic)
- Skin: Prolonged contact with cold bitumen may cause irritation; hot material causes burns

Section 12 – Ecological Information

- Not readily biodegradable
- Floats on water, may cause physical fouling
- Not acutely toxic to aquatic organisms under expected conditions

Section 13 – Disposal Considerations

- Recycle/reuse where possible
- Dispose of in accordance with local/national regulations
- Do not release into the environment



Section 14 – Transport Information

- **UN Number: Not regulated in cold/solid form**
- **Proper Shipping Name: Viscosity Grade Bitumen**
- **Transport Class: Not classified as dangerous goods (DOT/IMDG/IATA) in solid form**

Section 15 – Regulatory Information

- **All ingredients are listed on TSCA, EINECS, and other major inventories**
- **Not classified as hazardous under most regulations in solid state**

Section 16 – Other Information

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Disclaimer:

The information in this document is based on current knowledge at the date of publication and is intended to describe product safety requirements, not to guarantee product performance.