SAFETY DATA SHEET

BITUMEN 60/70

1. Identification of Substance or Mixture and of the Supplier

Product Name	Bitumen 60/70
Other Names	Asphalt, Penetration Grade Bitumen
Recommended Use	Penetration grade bitumen used for road construction and for the production of asphalt pavements; also used in waterproofing and industrial applications.
Supplier Details	**E. O. Trading Co** Mina Al Fahal (PDO Gate No. 1), Al Qurum P.O. Box 731, P.C. 120, Muscat, Sultanate of Oman Email: info@eotradingco.com · Web: www.eotradingco.com

2. Hazard Identification

GHS Classification	Not classified as hazardous. The main hazards presented by bitumen relate to the temperature of the material (hot product).
GHS Label Elements	Signal Word: WARNING
Hazard Statements	Hot material — contact causes severe thermal burns. Fumes from hot bitumen may irritate the eyes and respiratory system.
Precautionary Statements	Do not handle until all safety precautions have been read and understood. Wear heat-resistant gloves, protective clothing, eye and face protection. Keep away from heat, sparks and open flames. Use only in well-ventilated areas.

3. Composition / Information on Ingredients

Chemical Identity

Manufactured from the vacuum distillation of crude oil. Penetration grade bitumen is specified by the penetration test and has thermoplastic properties which cause the material to soften at high temperature and harden at lower temperature.

Composition Information

Name	CAS Number	Percent (%)
Bitumen	8052-42-4	100.0

4. First-Aid Measures

Inhalation	Move to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice.
Ingestion	Do not induce vomiting. Do not give liquids. Seek medical attention.
Skin Contact	Burns caused by contact with hot material should be cooled by immediately flushing with large amounts of cold water. Do not attempt to remove anything from the burn area unless required to allow breathing. Seek medical attention. Bitumen may be removed under medical supervision.
Eye Contact	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

5. Fire-Fighting Measures

Hazchem Code	Not applicable
Suitable Extinguishing Media	Foam, water spray or fog, dry chemical powder, carbon dioxide; sand or earth may be used for small fires only.
Unsuitable Extinguishing Media	Do not use water in a jet.
Hazards from Combustion Products	Combustion may produce carbon monoxide, carbon dioxide, oxides of sulphur and hydrocarbon fumes.
Specific Hazards during Fire Fighting	Sealed containers exposed to fire should be cooled with water. Do not use direct water jets on burning product as this may cause steam explosions and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water may destroy the foam.
Protective Equipment	Fire fighters should wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Use personal protective equipment. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate personnel to safe areas. Allow hot material to cool and solidify before handling.
Environmental Precautions	Avoid release to the environment. Avoid subsoil penetration.
Methods and Materials for Containment and Cleaning Up	If possible contain the spill. Contain liquid with sand or soil. Prevent spilled material from entering drains, sewers and open waterways. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations.

7. Handling and Storage

Safe Handling	Wear PPE to avoid contact with skin, eyes and respiratory tract. Wash face, hands and forearms thoroughly after handling. Keep clear of sources of ignition. Ensure electrical continuity of all relevant equipment by proper bonding, as electrostatic charges can be generated during pumping and tank-filling operations. Recycle all waste where possible.
Safe Storage Conditions	Store in original container under cover. To maintain product quality do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place. Bulk storage tanks should be maintained at the minimum temperature necessary for handling.
Recommended Materials	For containers or container linings, use mild steel or stainless steel.
Unsuitable Materials	For containers or container linings avoid PVC, polyethylene or high-density polyethylene.

8. Exposure Controls / Personal Protection

Control Parameters

Component	CAS No	Value Type	Permissible Concentration	Basis
Asphalt (fume)	8052-42-4	TWA	5 mg/m³ (fume)	OSHA / ACGIH

Occupational Exposure Limit	TWA (Time Weighted Average): the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
Biological Limit Values	No biological limit available.
Appropriate Engineering Controls	Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure, an approved respirator with a replaceable vapour/mist filter should be used. Refer to relevant regulations for respiratory protective requirements.
Eye Protection	Safety glasses with side shields, chemical goggles or full-face shield as appropriate. Eye protection devices should conform to relevant regulations.
Hand Protection	Wear gloves of impervious material; heat-resistant gloves recommended. Final choice of gloves will vary according to individual circumstances and risk assessments undertaken.
Body Protection	Suitable protective work wear, e.g. cotton overalls; long sleeves and trousers, safety boots.

9. Physical and Chemical Properties

Physical State	Semi-solid / solid at ambient temperature
Colour	Black
Odour	Characteristic hydrocarbon odour
Penetration @ 25 °C, 1/10 mm	60 – 70
Softening Point (R&B), °C	48 – 56
Flash Point (COC), °C	> 232
Relative Density @ 25 °C	1.00 – 1.06
Solubility in Water	Insoluble
Solubility in Trichloroethylene	> 99.0 % wt

10. Stability and Reactivity

Chemical Stability	Stable under normal conditions of storage and handling.
Conditions to Avoid	Heating above the maximum recommended storage and handling temperature will cause degradation and evolution of flammable vapours.
Incompatible Materials	Do not allow molten material to contact water or liquids, as this can cause violent eruptions, splatter hot material or ignite flammable material. Reacts with strong oxidising agents.
Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes, including hydrogen sulphide.

11. Toxicological Information

Acute Toxicity – Oral	LD50 (rat): > 5000 mg/kg
Acute Toxicity – Inhalation	Not considered an inhalation hazard under normal conditions of use. Avoid vapours from heated material to prevent exposure to potentially toxic/irritating fumes.

Acute Toxicity – Dermal	LD50 (rat): > 5000 mg/kg
Ingestion	Ingestion is unlikely; may irritate the gastric tract causing nausea and vomiting.
Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Skin	May be irritating to skin; symptoms may include redness, itching and swelling. Contact with molten product causes severe irritation and thermal burns with permanent scarring of tissue.
Eye	May be an eye irritant.
Sensitisation	Not expected to be a respiratory or skin sensitiser.
Germ Cell Mutagenicity	Not considered to be a mutagenic hazard.
Carcinogenicity	Not classified. Fumes from bitumen heated above recommended temperatures should be avoided.
Reproductive Toxicity	Not considered to be toxic to reproduction.
Aspiration Hazard	Not considered an aspiration hazard.

12. Ecological Information

Toxicity	This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.
Acute Toxicity	Poorly soluble mixture; may cause physical fouling of aquatic organisms. Expected to be practically non-toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms).
Mobility	Adsorbs to soil and has low mobility. In water it will either float or sink, showing little tendency to disperse; the product will adsorb to the sediment.
Persistence / Degradability	Expected to be not inherently biodegradable.
Bioaccumulative Potential	Has the potential to bioaccumulate; in practice the very low water solubility and high molecular weight limit bioavailability to aquatic organisms, so bioaccumulation is unlikely.
Other Adverse Effects	Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not allow into drains or watercourses, or dispose of where ground or surface waters may be affected.

14. Transport Information

UN Number	UN 3257
Proper Shipping Name	Elevated temperature liquid, n.o.s. (Bitumen) — applies when transported at or above 100 °C
Hazard Class	9
Packing Group	III
Note	Not regulated as dangerous goods when transported in solid form or below 100 °C (e.g. in drums at ambient temperature).

15. Regulatory Information

Classified in accordance with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and applicable work, health and safety regulations of the Sultanate of Oman and destination countries.

16. Other Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. It relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process.

REGISTERED OFFICE
Mina Al Fahal (PDO Gate No. 1), Al Qurum, P.O. Box 731, P.C. 120, Muscat, Sultanate of Oman
info@eotradingco.com | www.eotradingco.com