

SAFETY DATA SHEET

BITUMEN 80/100



1. Identification of Substance or Mixture and of the Supplier

Product Name : Bitumen 80/100
Other Names : Asphalt
Recommended Use : Penetration grade Bitumen is used for road constructions and for the production of asphalt pavements with superior properties.

Suppliers Details : **Attock Refinery Limited**
 P.O. Refinery, Morgah, Rawalpindi, Pakistan
 Telephone/Fax Number
 Tel: +92-51-5487041
 Fax: +91-51-5487041

Emergency Phone Number : +92-51-5487041

2. Hazard Identification

GHS Classification : Not classified as hazardous. The main hazards presented by Asphalt relate to the temperature of the material.

GHS Label Elements & Precautionary Statements



Signal Word
Warning

3. Composition / Information on Ingredients

Chemical Identity : It is manufactured from Vacuum distillation of crude oil. Penetration grade bitumen is specified by penetration test. Penetration grade bitumen has thermoplastic properties which causes the material to soften to soften at high temperature and to harden at lower temperature.

Composition Information

Name	CAS Number	Percent (%)
Bitumen	128683-24-9	100.0

4. First-Aid Measures

- Inhalation** : Move to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice
- Ingestion** : Not considered a potential route of exposure
- Skin** : 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.
If symptoms develop and/or persist seek medical attention.

5. Fire Fighting Measures

- Hazchem Code** : 2Y
- 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** : Non combustible material. However, under fire conditions this product may emit toxic and/or irritating fumes and gases (smoke). Boil-over of tanks and violent eruptions may occur in the presence of water.
- Specific Hazards during Fire Fighting** : Sealed containers that are exposed to fire should be cooled with water. Do not use direct water jets on the burning products as this may cause steam explosions and the spread of the fire. Simultaneous use of foam and water on the same surface is to be avoided as water may destroy the foam
- Decomposition Temperature** : Not available

6. Accidental Release Measures

- Personal Precautions, Protective Equipment and Emergency** : 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.

Procedures

Environmental : Avoid release to the environment. Avoid subsoil penetration.

Precautions

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 the applicable local and national regulation

7. Handling & Storage

Safe Handling : Wear PPE to avoid contact with skin, eyes and respiratory tract. Wash face, hands and forearms thoroughly after handling. Keep clear from sources of ignition. Ensure electrical continuity of all relevant equipment by proper bonding as electrostatic charges can potentially be generated during pumping and tank-filling operations. Recycle all waste where possible.

Safe Storage Conditions : Store in original container. To maintain product quality, do not store in heat or direct sun-light. Keep in a dry, cool and well ventilated place.

Recommended Material : For containers or container linings, use stainless steel.

Unsuitable Materials : For containers or container linings avoid PVC, polyethylene or high density polyethylene.

8. Exposure Control / Personnel Protection

Occupational Exposure Limit Values

Component	CAS No	Value Type (Form of Exposure)	Control Parameters / Permissible Concentration	Basis
Asphalt	68476-33-5	TWA	5 mg/m ³ (Fume)	OSHA

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 then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements
- Eye Protection** : Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances.
Eye protection devices should conform to relevant regulations
- Hand Protection** : Wear gloves of impervious material. Heat resistant gloves recommended. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.
- Body Protection** : Suitable protective work wear, e.g. Cotton overall/ dangries.

9. Physical & Chemical Properties

- Physical State** : Semi Solid, Solid
Color : Black
Penetration @ 25°C, 1/10 mm : 80-100
Flash °C : >232

10. Stability & Reactivity

- Chemical Stability** : Stable under normal conditions of storage and handling
- Conditions to Avoid** : Heating above the maximum recommended storage and handling temperature (140°C), will cause degradation and evolution of flammable vapours.
- Incompatible Products** : 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 oxidizing agents
- Hazardous Decomposition Products** : Thermal decomposition may result in the release of toxic and/or irritating fumes .

11. Toxicological Information

- Toxicology Information** : **Acute Toxicity – Oral**
 LD50 :(Rat) : >5000 mg/kg

: Acute Toxicity – Inhalation

Not considered to be an inhalation hazard under normal conditions of use. Avoid vapours from heated materials to prevent exposure to potentially toxic/irritating fumes.

: Acute Toxicity – Dermal

LD50 :(Rat) : >5000 mg/kg

Ingestion

: Ingestion is unlikely. However, Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

: Inhalation of product vapors may cause irritation of the nose, throat and respiratory system.

Skin

: May be irritating to skin. The symptoms may include redness, itching and swelling. Contact with molten product can cause severe irritation and thermal burns with permanent scarring of tissue.

Eye

: May be an eye irritant

Respiratory Sensitization

: Not expected to be a respiratory sensitizer

Skin Sensitization

: Not expected to be a skin sensitizer

Germ cell Mutagenicity

: Not considered to be a mutagenic hazard

Carcinogenicity

: Not considered

Reproductive Toxicity

: Not considered to be toxic to reproduction

Aspiration Respiratory Organs 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. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

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)(LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

- Mobility** : Adsorbs to soil and has low mobility. In water 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 solubilities and high molecular weights of these substances are such that their bioavailability to aquatic organisms is limited and therefore 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

Hazard Class
Not Applicable

U.N. Number
3257

Packaging Group
III

15. Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations.

16. Other Information including Information on Preparation and revision of the SDS

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 given 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. The information 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.