



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
 (ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
 (A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
 F&S/MSDS
 Rev 4

PRODUCT NAME:BITUMEN

[BACK](#)

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product Name : Bitumen (Producer/User : BBU,OM&S,Marketing)		Chemical Designation : Mixture of Hydrocarbons	
Trade Name: Bitumen(60/70), Bitumen(80/100), Bitumen(Modified)		Synonyms: MacKay River Bitumen, FireBag Hot Bitumen, Dover Bitumen, Bitumen, Off-Spec Bitumen, Sales Oil, FB HB, FHB, MKB, Natural Asphalt	
Formula: Mixture of Hydrocarbons	Label : Category Class: 3	CAS Number : 8052-42-4	UN Number : 1993
Regulated Identification: ----	Shipping Name Codes / Label : Flammable liquid		Hazchem Code : ---

Firm's Name: Mangalore Refinery & Petrochemicals Ltd.	Standard Packing : --
Mailing Address: At P.O Kuthethoor, Mangalore- 575030 (D.K.)	Emergency Telephone During Transit :(0824)2882898
Contact Persons In Case of Emergency:	
Head-Marketing TEL: (0824)2882739, 2718,3702,2717,2746	
Fire & Safety ,Control Room TEL: :0824 288 2333 / 3333	



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
 (ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
 (A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
 F&S/MSDS
 Rev 4

2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Potential Health Effects

Primary Routes of Entry : Eye contact
 Ingestion
 Inhalation
 Skin contact

Inhalation : May cause respiratory tract irritation. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Inhalation may cause central nervous system effects. Hydrogen sulphide may be released and collect in the vapor space of process vessels and storage tanks. In high doses hydrogen sulphide may produce pulmonary edema and respiratory depression or paralysis.

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Aggravated Medical Condition: None known.

Other hazards

None known.

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical name	CAS-No.	Concentration
Bitumens	128683-24-9	90 - 100 %
Organo-sulphur compounds	7704-34-9	4 - 5 %

During storage or transit of hot bitumen, hydrogen sulphide may be generated., May contain Polycyclic Aromatic Hydrocarbons (PAHs).

4. FIRST AID MEASURES

If inhaled : Move to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Seek medical advice.



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
(ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
(A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
F&S/MSDS
Rev 4

In case of eye contact : Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

If swallowed : Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice. Most important symptoms and effects, both acute and delayed: First aider needs to protect himself

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : No information available.

Specific hazards during firefighting : Cool closed containers exposed to fire with water spray. Hazardous combustion products : Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), sulphur oxides (SO_x), hydrogen sulphide (H₂S), smoke and irritating vapours as products of incomplete combustion.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.

Environmental precautions

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for : Prevent further leakage or spillage if safe to do so. Containment and cleaning up Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities

7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.

Conditions for safe storage : Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Bitumens	128683-24-9	TWA	5 mg/m ³ (Bitumen fume)	

Engineering measures : No special ventilation requirements. Good general ventilation



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
(ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
(A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
F&S/MSDS
Rev 4

should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator

Filter type : organic vapour cartridge or canister with a dust, fume or mistfilter (R, or P series) may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Hand protection

Material : natural rubber (latex), Viton(R).

Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Wear face-shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : Wash contaminated clothing before re-use.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	viscous liquid
Color	Black
Odor	Tarry odour. "Rotten egg" if H ₂ S present, but odour is an unreliable warning, since it may deaden the sense of smell.
Odor threshold	No data available
pH	Not applicable
Pour Point	21°C (70°F)
Boiling point	230 - 1,000°C (446 - 1,832°F)
Flash point	182 °C (360 °F)
Flammability (solid, gas)	Low fire hazard. This material must be heated before ignition will occur. Hydrogen sulphide may be released if the product is overheated.
Upper explosive limit	No data available
Lower explosive limit	No data available
Vapor density (air = 1)	1 - 1.1
Auto-ignition temperature	> 245 °C (> 473 °F)
Kinematic viscosity	29116 cSt (40 °C / 104 °F)



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
 (ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
 (A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
 F&S/MSDS
 Rev 4

10. STABILITY & REACTIVITY

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Stable under normal conditions. Conditions to avoid : No data available

Incompatible materials : Reactive with oxidising agents.

Hazardous decomposition products : May release CO_x, NO_x, SO_x, H₂S, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other

aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available.

13. DISPOSAL CONSIDERATION

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labeled prior to recycling or disposal. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal. Contaminated packaging : Do not re-use empty containers

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

TDG

Not regulated as a dangerous good



मंगलूर रिफाइनरी एवं पेट्रोकेमिकल्स लिमिटेड
(ऑइल एंड नैचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी)
Mangalore Refinery and Petrochemicals Limited
(A Subsidiary of Oil and Natural Gas Corporation Limited)

07/02/2023
F&S/MSDS
Rev 4

15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

The components of this product are reported in the following inventories:

DSL On the inventory, or in compliance with the inventory

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 given is designed only as a 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, unless specified in the text.