



# MATERIAL SAFETY DATA SHEET

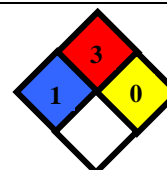


## MOTOR SPIRIT

### Section 1 – Chemical Product and Company Identification

Chemical Name : Motor Spirit  
Chemical Formula : Complex mixture of hydrocarbons  
CAS Number :  
Synonyms : Gasoline, Petrol, Gas  
General Use : Motor Fuel

Manufacture's Name : Bharat Petroleum Corporation Limited  
Address : Refinery, Mahul, Chembur, Mumbai 400074  
Telephone Number for Info : 25533888 / 25533999 / 25524888 / 25524999  
MSDS No. :  
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Revision : 2



NFPA 704 (Sec 16)

### Section 2 – Composition / Information on Ingredients

Composition : Gasoline > 97% v  
Benzene < 1 % v  
MTBE < 15 % v  
Ethanol < 5 % v

Hazardous Components : Benzene, MTBE  
ACIGH TLV TWA : Gasoline – 300 ppm , Benzene – 0.5 ppm, MTBE – 50 ppm

### Section 3 – Hazards Identification

Primary Entry Routes : Ingestion, inhalation, skin and eyes  
Acute Effects : Inhalation can cause dizziness, headache and nausea, depresses central nervous system and has an anesthetic effect. Breathing of liquid droplets may lead to chemical pneumonia. Ingestion can lead to nausea, diarrhea and affect central nervous system. Skin irritant. Prolonged contact can result in skin drying and dermatitis. Eye irritant.

Carcinogenicity : Benzene component is listed as carcinogenic  
Chronic Effects : No data available

### Section 4 – First Aid Measures

Eyes : Flush with water for 15 min. Get medical attention.  
Skin : Wash with warm water & soap.  
Inhalation : Remove to fresh air. Consult a physician if irritation persists.  
Ingestion : Do not induce vomiting. Do not give liquids. Get medical help at once.

### Section 5 – Fire Fighting Measures

Flash Point : < - 10 °C  
Flash Point Method : Abel  
Auto ignition Temperature : 250 °C to 280 °C (highly variable)

LEL :	1.4 %
UEL :	7.6 %
Flammability Classification :	Flammable
Extinguishing Media :	Foam, Dry Chemical Powder, CO2
Unusual Fire or Explosion :	Heat produces vapours and can cause violent rupture of containers. Vapours may travel long distance and can flash back.
Hazards :	Carbon di oxide, carbon mono oxide, benzene
Hazardous Combustion Products :	
Fire-Fighting Instructions :	Small fires can be extinguished by hand held extinguishers. Major fires may require withdrawal and allowing the tank to burn. Fire fighters should wear self breathing apparatus while fighting fire

### Section 6 – Accidental Release Measures

Small Spills :	Shut off leaks without risk. Absorb on sand or earth.
Containment :	Prevent spillage from entering drains or water sources
Cleanup :	After spills wash area with soap and water preventing runoff from entering drains.

### Section 7 – Handling and Storage

Handling Precautions :	Do not use/store near heat/open flame. Avoid contact with liquid or vapours. Use gumboots, gloves while handling the product. Do not inhale. Stay upwind while handling the product. Product should never be used to remove oil or grease from skin. It should not be siphoned by mouth. Tanks and dispensing equipments should be grounded to reduce static charge fires. It should be stored in closed containers away from heat & source of ignition. Avoid contact with skin and eyes. Wash thoroughly after handling
Storage Requirements :	Do not use/store near heat/open flame/water/acids

### Section 8 – Exposure Controls / Personal Protection

Engineering Controls :	Provide proper ventilation for environment to be below TWA
Respiratory Protection :	Use respiratory protection if ventilation is improper
Protective Clothing / Equipment :	Use face shield, PVC gloves, safety boots while handling. Contaminated clothing to be immediately removed

### Section 9 – Protection Physical and Chemical Properties

Physical State :	Liquid
Appearance and Odour :	Water white liquid, dyed orange or red for detection. Characteristic hydrocarbon like odour
Vapor Pressure :	5.0 to 8.7 psi at 38 °C (RVP)
Specific Gravity :	0.71 to 0.77 gm / cc
Water Solubility :	Insoluble
Boiling Point :	35 °C to 215 °C
Freezing Point :	Data not available
Vapour Density :	3 to 4 (Air = 1)

### Section 10 – Stability and Reactivity

Stability :	Chemically stable.
Chemical Incompatibilities :	Incompatible with oxidizing agents & chlorine. Reacts vigorously with oxidising materials.
Conditions to Avoid :	Can undergo auto-oxidation in air & generate heat which can build up in a confined space to cause spontaneous combustion
Hazardous Decomposition Products :	Carbon di oxide, carbon mono oxide

## Section 11 – Toxicological Information

ACIGH TLV TWA :	Gasoline – 300 ppm , Benzene – 0.5 ppm, MTBE – 50 ppm
Toxicity Data :	LD50 (Oral-Rat) 18.75 ml / kg
Acute Inhalation Effects :	Benzene component is carcinogenic.

## Section 12 – Ecological Information

Prevent spillage from entering drains or water sources. After spills wash area with soap and water preventing runoff from entering drains. Can burn with lot of heat producing CO<sub>2</sub> and CO.

## Section 13 – Disposal Considerations

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

## Section 14 – Transport Information

Shipping Name : Motor Spirit, Gasoline

## Section 15 – Regulatory Information

Non - Toxic/Flammable Substance

## Section 16 – Other Information

Motor spirit is highly inflammable and should be used only as fuel. The product is dyed orange or red colour depending on its grade.

Prepared by : Process Safety Section, BPCL- Mumbai Refinery

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