



## MATERIAL SAFETY DATA SHEET

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

<b>Product name</b>	MAK SHEROL BS
<b>Product type</b>	Cutting oil - Water Soluble Type
<b>Product Supplier</b>	Bharat Petroleum Corporation Limited, 4 & 6, Currimbhoy Road, Ballard Estate, Mumbai – 400 001. Maharashtra, India.

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Preparation description</b>	Blend of semi synthetic oils and performance additives.
<b>Additives containing Antioxidants, Antirust and Antifoam agents.</b>	

The chemical identity of some or all the ingredients is confidential business information and is being withheld. In the event of a medical emergency, compositional information will be provided to medical staff.

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### 3. HAZARDS IDENTIFICATION

<b>Human health hazards</b>	No specific hazards under normal use conditions. Prolonged or repeated exposure may give rise to dermatitis and may cause central nervous system effects (including respiratory, motor difficulties & paralysis), digestive disturbances, liver & kidney effects.
<b>Safety hazards</b>	Not classified as flammable, but will burn.
<b>Environmental hazards</b>	Not readily biodegradable.
<b>Other information</b>	Not classified as dangerous for supply or conveyance.

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### 4. FIRST AID MEASURES

<b>Symptoms and effects</b>	Not expected to give rise to an acute hazard under normal conditions of use
<b>First Aid – Inhalation</b>	In the event of dizziness or nausea, remove casualty to fresh air. If symptoms persist, obtain medical attention.
<b>First Aid – Skin</b>	Remove contaminated clothing and wash affected skin thoroughly in flowing water. If persistent irritation occurs, obtain medical attention. If high pressure injection injuries occur, obtain medical attention immediately. Do not reuse contaminated clothing or shoes until thoroughly decontaminated.

<b>First Aid – Eye</b>	Flush eye with copious quantities of water at least for 15 minutes. If persistent irritation occurs, obtain medical attention.
<b>First Aid - Ingestion</b>	DO NOT INDUCE VOMITING. If conscious give two glasses of water and get immediate medical attention.
<b>Advice to physicians</b>	Treat symptomatically, aspiration into the lungs may result in chemical pneumonitis. Dermatitis may result from prolonged or repeated exposure.
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<b>5. FIRE FIGHTING MEASURES</b>	
<b>Specific hazards</b>	Combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide, oxides of sulphur, and unidentified organic and inorganic compounds.
<b>Extinguishing media</b>	Foam , Dry Chemical Powder, Carbon dioxide, sand and earth may be used.
<b>Unsuitable extinguishing media</b>	Use of Halon extinguishers should be avoided for environmental reasons.
<b>Protective equipment</b>	Fires in confined spaces should be dealt with by trained personnel wearing breathing apparatus.
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<b>6. ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal precautions</b>	Avoid contact with skin and eyes.
<b>Personal protection</b>	Wear impermeable gloves and boots.
<b>Environmental precautions</b>	Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers. Inform local authorities if this cannot be prevented.
<b>Clean-up methods – small spillage</b>	Absorb liquid with sand or earth, Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.
<b>Clean-up methods – large spillage</b>	Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Dispose of as for small spills.
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<b>7. HANDLING AND STORAGE</b>	
<b>Handling</b>	Carry out a health risk assessment to determine safe handling procedures and equipment that are necessary to avoid contact and that are appropriate to the job. Prevent spillages.
<b>storage</b>	Store in a cool, dry, well-ventilated place. Use properly labeled and closeable containers. Avoid direct sunlight, heat sources, and strong oxidizing agents.
<b>Storage temperature</b>	0 °C minimum to 50 °C maximum
<b>Recommended materials</b>	Use mild steel or high density polyethylene (HDPE) for containers or container linings.
<b>Unsuitable materials</b>	Avoid PVC for containers or container linings.
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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering control measures</b>	Exposure limit of 5 mg/m <sup>3</sup> for oil mist applies (TWA, 8h-workday) recommended based upon the ACGIH TLV ( Analysis according to US NIOSH method 5026, NIOSH Manual of analytical methods, 3 <sup>rd</sup> edition).
<b>Hygiene measures</b>	Wash hands before eating, drinking, smoking and using the toilet.
<b>Respiratory protection</b>	Carry out a health risk assessment to determine personal protection equipment that is necessary to avoid contact and exposure and that is appropriate to the job.
<b>Hand protection</b>	Wear PVC or nitrile rubber gloves.
<b>Eye protection</b>	Wear safety glasses or full face shield if splashes are likely to occur.
<b>Body protection</b>	Minimise all forms of skin contact, Wear overalls to minimise contamination of personal clothing. Launder overalls and undergarments regularly.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Liquid at ambient temperature.
<b>Colour</b>	Amber
<b>odour</b>	Characteristic mineral oil
<b>Initial boiling point</b>	Expected to be above 280 °C.
<b>Vapour pressure</b>	Expected to be less than 0.5 Pa at 20 °C
<b>Vapour density (air = 1)</b>	Greater than 1
<b>Kinematic Viscosity at 40°C, cSt</b>	20 min.
<b>Flash point, °C (COC)</b>	> 150°C.(After water removal)
<b>Flammability limit - lower</b>	1 % v/v
<b>Flammability limit - upper</b>	10 % v/v
<b>Auto-ignition temperature</b>	Expected to be above 320 °C
<b>Solubility in water</b>	Soluble

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**10. STABILITY/REACTIVITY**

<b>Stability</b>	Stable
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight
<b>Materials to avoid</b>	Strong oxidizing agents
<b>Hazardous decomposition products</b>	Hazardous decomposition products are not expected to form during normal storage.

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**11 TOXICOLOGICAL INFORMATION**

<b>Acute toxicity - Inhalation</b>	Not considered to be Inhalation hazard under normal conditions of use.
<b>Eye Irritation</b>	Expected to be slightly irritant
<b>Skin irritation</b>	Expected to be slightly irritant, prolonged or repeated skin contact may cause dermatitis.
<b>Respiratory Irritation</b>	If mists are inhaled, slight irritation of the respiratory tract may occur
<b>Skin Sensitization</b>	Not expected to be a skin sensitizer

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**12. ECOLOGICAL INFORMATION**

<b>Basis of assessment</b>	Ecotoxicological data have not been determined specifically for this product. Information given is based on the knowledge of the components and the ecotoxicology of similar products.
<b>Mobility</b>	Liquid under most environmental conditions.
<b>Persistence/degradability</b>	Not readily biodegradable. Major constituents are expected to inherently biodegradable, but the product contains components that may persist in the environment.

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**13. DISPOSAL CONSIDERATIONS**

<b>Waste disposal</b>	The emulsion has to be broken by appropriate treatment. On breaking the emulsion into oil & water components, the water may be combined with other plant waste water for further treatment. The waste oil should be recycled or disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor.
<b>Product disposal</b> <b>Container disposal</b>	As for waste disposal. 200 litre drums should be drained and returned to the supplies or sent to a drum reconditioner without removing or defacing marking or labels.

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**14. TRANSPORT INFORMATION**

Not dangerous for conveyance under UN, IMO, ADR/RID and IATA/ICAO codes.

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**15. REGULATORY INFORMATION**

**EC Classification**

Not classified as dangerous under EC criteria

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**16. OTHER INFORMATION**

**Compiled By**

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