



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Preparation description	Blend of highly refined mineral oils and performance additives like emulsifiers, anti-rust, anti-foam agents and EP additives.
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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.

3. HAZARDS IDENTIFICATION

Human health hazards	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.
Safety hazards	Not classified as flammable, but will burn.
Environmental hazards	Not readily biodegradable.
Other information	Not classified as dangerous for supply or conveyance.

4. FIRST AID MEASURES

Symptoms and effects	Not expected to give rise to an acute hazard under normal conditions of use
First Aid – Inhalation	In the event of dizziness or nausea, remove casualty to fresh air. If symptoms persist, obtain medical attention.
First Aid – Skin	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.

First Aid – Eye	Flush eye with copious quantities of water at least for 15 minutes. If persistent irritation occurs, obtain medical attention.
First Aid - Ingestion	DO NOT INDUCE VOMITING. If conscious give two glasses of water and get immediate medical attention.
Advice to physicians	Treat symptomatically, aspiration into the lungs may result in chemical pneumonitis. Dermatitis may result from prolonged or repeated exposure.
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5. FIRE FIGHTING MEASURES	
Specific hazards	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.
Extinguishing media	Foam , Dry Chemical Powder, Carbon dioxide, sand and earth may be used.
Unsuitable extinguishing media	Use of Halon extinguishers should be avoided for environmental reasons.
Protective equipment	Fires in confined spaces should be dealt with by trained personnel wearing breathing apparatus.
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6. ACCIDENTAL RELEASE MEASURES	
Personal precautions	Avoid contact with skin and eyes.
Personal protection	Wear impermeable gloves and boots.
Environmental precautions	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.
Clean-up methods – small spillage	Absorb liquid with sand or earth, Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.
Clean-up methods – large spillage	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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7. HANDLING AND STORAGE	
Handling	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.
storage	Store in a cool, dry, well-ventilated place. Use properly labelled and closeable containers. Avoid direct sunlight, heat sources, and strong oxidizing agents.
Storage temperature	0 °C minimum to 50 °C maximum
Recommended materials	Use mild steel or high density polyethylene (HDPE) for containers or container linings.
Unsuitable materials	Avoid PVC for containers or container linings.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering control measures	Exposure limit of 5 mg/m ³ 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 rd edition).
Hygiene measures	Wash hands before eating, drinking, smoking and using the toilet.
Respiratory protection	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.
Hand protection	Wear PVC or nitrile rubber gloves.
Eye protection	Wear safety glasses or full face shield if splashes are likely to occur.
Body protection	Minimise all forms of skin contact, Wear overalls to minimise contamination of personal clothing. Launder overalls and undergarments regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid at ambient temperature.
Colour	Amber
odour	Characteristic mineral oil
Vapour pressure	Expected to be less than 0.5 Pa at 20 °C
Vapour density (air = 1)	Greater than 1
Kinematic Viscosity at 40°C, cSt	No specific data
Flash point, °C (COC)	> 100°C
Flammability limit - lower	1 % v/v
Flammability limit - upper	10 % v/v
Auto-ignition temperature	> 150°C
Solubility in water	Soluble

10. STABILITY/REACTIVITY

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

11 TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

Waste disposal	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.
Product disposal	As for waste disposal.
Container 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.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

EC Classification

Not classified as dangerous under EC criteria

16. OTHER INFORMATION

Compiled By

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