



## MATERIAL SAFETY DATA SHEET

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

<b>Product name</b>	MAK TCPF 54/60/62
<b>Product type</b>	Temporary Corrosion Preventive Fluid
<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>	Mixture of chemicals
<b>Product Type:</b>	Rust Preventive Oil.

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>	If oil is swallowed liquid paraffin should be given to minimise gastro intestinal absorption. Emetics is contra-indicated because it may causes the oil to inhale and lead to aspiration pneumonia. Not expected to cause eye irritation, but it is recommended to prevent direct exposure of workers to mineral oils vapours to eyes during operation involving the use of this liquid. The coating should be conducted in well ventilated conditions.
<b>Environmental hazards</b>	Not readily biodegradable. Expected to have a high potential to bioaccumulate.
<b>Other information</b>	Not classified as dangerous for supply or conveyance. Keep containers closed when not in use.

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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 with copious quantities of soap & water. Do not use solvent for cleaning. If persistent irritation occurs, obtain medical attention. 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. Give two glasses of water along with liquid paraffin 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. Wearing self content breathing apparatus
<b>Extinguishing media</b>	CO <sub>2</sub> Dry Chemicals Jet. Cool water can be used and protect the exposed material
<b>Protective equipment</b>	Trained personnel wearing breathing apparatus should deal with fires in confined spaces.
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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. Pick up free liquid for re-cycling or disposal. The residual oil can be transferred to another containers.
<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 close-able containers. Avoid direct sunlight, heat sources, and strong oxidizing agents.
<b>Storage temperature</b>	0 °C minimum to 27 °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). Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain concentrations below recommended exposure limits.
<b>Hygiene measures</b>	Wash hands before eating, drinking, smoking or using the toilet and when leaving work.
<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. Long sleeve shirt is recommended.. Launder overalls and undergarments before use.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Liquid at ambient temperature.
<b>Colour</b>	Light yellow to dark brown liquid
<b>Odour</b>	Petroleum Odour
<b>Solubility in solvents</b>	Soluble in organic solvents/petroleum solvents
<b>Solubility in water</b>	Insoluble
<b>Kinematic Viscosity at 40°C, cSt</b>	1.5-2.0
<b>Specific gravity, 29.5</b>	0.78-0.85
<b>Flash point, °C (COC)</b>	32 min.

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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>	Acids, 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.
<b>Bioaccumulation</b>	Has the potential to bioaccumulate

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**13. DISPOSAL CONSIDERATIONS**

<b>Waste disposal</b>	Used or waste oil should be recycled or disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the contractor to deal satisfactorily with used oil should be established beforehand.
<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**

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**16. OTHER INFORMATION**

**Compiled By** P&AD Department,  
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