



# BHARAT PETROLEUM CORPORATION LTD.

## MATERIAL SAFETY DATA SHEET – MAK RUSTROL 152

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

<b>Product name</b>	Mak Rustrol 152
<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.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Preparation description</b>	Blend of highly refined mineral oils and performance additives
<b>A. Base Oil</b>	85 – 90 % wt.
<b>B. Performance Additives</b>	10 – 15 % wt.

### 3. HAZARDS IDENTIFICATION

<b>Human health hazards</b>	No specific hazards under normal use conditions. Exposure limit for oil mist applies. Prolonged or repeated exposure may give rise to dermatitis.
<b>Safety hazards</b>	Not classified as flammable, but will burn.
<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.

### 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 with soap and water. If persistent irritation occurs, obtain medical attention. If high pressure injection injuries occur, obtain medical attention immediately.
<b>First Aid – Eye</b>	Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
<b>First Aid - Ingestion</b>	Wash out mouth with water and obtain medical attention. DO NOT INDUCE VOMITING.

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**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 particulate and gases, including carbon monoxide, oxides of sulphur, and unidentified organic and inorganic compounds.

**Extinguishing media**

Foam and dry chemical powder, Carbon dioxide, sand and earth may be used for small fires only.

**Unsuitable extinguishing media**

Never use a water jet. Use of Halon extinguishers should be avoided for environmental reasons.

**Protective equipment**

Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

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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 spillage's.

**Storage**

Store in a cool, dry, well-ventilated place. Use properly labeled and closable 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

<b>Engineering control measures</b>	Carry out a health risk assessment to determine safe operating procedures to avoid contact and exposure. Apply engineering controls appropriate to the job.
<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>Density (Typical)</b>	0.8819 g/ml at 15 °C
<b>Vapour density (air = 1)</b>	Greater than 1
<b>Pour point</b>	0 °C max.
<b>Kinematic Viscosity at 40°C, cSt</b>	28.8 to 35.2
<b>Flash point, °C (COC)</b>	160 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>	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
<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 a knowledge of the components and the ecotoxicology of similar products.
<b>Mobility</b>	Liquid under most environmental conditions. Floats on water, if it enters soil, it will absorb to soil particles and will not be mobile.
<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>	As for waste disposal.
<b>Container disposal</b>	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**

<b>EC Classification</b>	Not classified as dangerous under EC criteria
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**16. OTHER INFORMATION**

<b>Compiled By</b>	Product and Application Development Department, Bharat Petroleum Corporation Limited, “ A ” Installation, Sewree (East), Mumbai - 400 015.
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