



# MATERIAL SAFETY DATA SHEET

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

**PRODUCT NAME** : MAK RR GREASE 3

**PRODUCT TYPE** : LUBRICATING GREASE

**PRODUCT SUPPLIER** : BHARAT PETROLEUM CORPORATION LTD.,  
4 & 6, CURRIMBOY ROAD, BALLARD ESTATE,  
MUMBAI – 400 001. MAHARASHTRA.  
INDIA.

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## 2. PRODUCT/INGREDIENT

**CHEMICAL COMPOSITION** :

1. HIGHLY REFINED BASE OIL : 80 – 85 % WT.

2. ADDITIVES CONTAINING  
ANTIOXIDANTS, ANTIRUST &  
ANTICORROSIVE AGENTS : 10 - 15 % WT.

3. LITHIUM HYDROXIDE : 5 – 10 % WT.

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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## 4. HEALTH INFORMATION

**EYE CONTACT** : MAY BE MILDLY IRRITATING TO THE EYES

**SKIN CONTACT** : PROLONGED OR REPEATED CONTACT MAY  
CAUSE VARIOUS SKIN DISORDERS SUCH AS  
DERMATITIS, FOLLICULITIS OR OIL ACNE.  
RELEASE DURING HIGH PRESSURE USAGE  
MAY RESULT IN INJECTION OF OIL INTO THE  
SKIN CAUSING LOCAL NECROSIS.

**INHALATION** : NO SPECIFIC INFORMATION IDENTIFIED

**INGESTION** : NO SPECIFIC INFORMATION IDENTIFIED

- SIGNS AND SYMPTOMS** : IRRITATION AS NOTED ABOVE . LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION.
- OTHER HEALTH EFFECTS** : THIS PRODUCT AND ITS COMPONENTS ARE NOT CLASSIFIED AS CARCINOGENS BY INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), NATIONAL TOXICOLOGY PROGRAM (NTP) OR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). THIS SPECIFIC PRODUCT HAS NOT BEEN TESTED IN LONG-TERM CHRONIC EXPOSURE TESTS. LUBRICATING GREASES ARE GENERALLY CONSIDERED TO BE OF A LOW ORDER OF ACUTE TOXICITY TO HUMANS AND EXPERIMENTAL ANIMALS. HOWEVER, THE HANDLING PROCEDURES AND SAFETY PRECAUTIONS IN THIS MSDS SHOULD BE FOLLOWED TO MINIMISE EMPLOYEE'S EXPOSURE.
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## **5. EMERGENCY AND FIRST AID MEASURES**

- EYE CONTACT** : FLUSH WITH COPIOUS AMOUNT OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
- SKIN CONTACT** : REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS OFF. WASH WITH SOAP AND WATER OR A WATERLESS HAND CLEANER FOLLOWED BY SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS DAMAGE. DO NOT WAIT FOR SYMPTOMS TO DEVELOP.
- INHALATION** : INHALATION OF FUMES MAY CAUSE THROAT & NOSE IRRITATION. REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

**INGESTION** : DO NOT INDUCE VOMITTING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER GET MEDICAL ATTENTION.

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## **6. FIRE AND EXPLOSION HAZARDS**

**FLASH POINT AND METHOD** : 212 °C PMCC (BASE OIL)  
**FLAMMABLE LIMITS / % VOLUME IN AIR** : LOWER: N/AV UPPER: N/AV

**EXTINGUISHING MEDIA** :

USE WATER FOG, DRY CHEMICAL OR CO<sub>2</sub>. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

### **SPECIAL FIRE FIGHTING PROCUEDURES AND PRECAUTIONS :**

DO NOT ENTER CONFINED FIRE SPACE WITHOUT PROPER PROTECTITVE EQUIPMENT . COOL FIRE EXPOSED CONTAINERS SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.

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## **7. HANDLING & STORAGE**

**HANDLING PRECAUTIONS** : SPILLED MATERIAL MAY BE SLIPPERY. DO NOT WASH SPILLED MATERIAL INTO DRAINS. AVOID CONTACT WITH EYES. WEAR FACE VISORS WHILE HANDLING HOT MATERIAL. AVOID PROLONGED SKIN CONTACT WASH HANDS WITH SOAP & WATER AFTER HANDLING.

**STORAGE CONDITIONS** : ALWAYS STORE UNDER COVER AWAY FROM SUNLIGHT AND SOURCES OF IGNITION IN AN UPRIGHT POSITION.

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## **8. PERSONAL PROTECTION**

**RESPIRATORY PROTECTION** : NOT ORDINARILY REQUIRED. USE BREATHING MASKS IF FUMES ARE GENERATED WHILE IN USE

**PROTECTIVE CLOTHING** : USE OIL RESISTANT GLOVES AND OTHER CLOTHING AS NEEDED TO MINIMIZE SKIN CONTACT.

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## 9. PHYSICAL DATA

PHYSICAL STATE	:	SEMI SOLID
COLOUR	:	PALE YELLOW
STRUCTURE	:	SMOOTH BUTTERY
DROP POINT(DEG. C)	:	180 MIN.
CONSISTENCY @ 25°C	:	220 – 250
SOLUBILITY IN WATER	:	INSOLUBLE

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## 10. REACTIVITY / STABILITY

<b>STABILITY</b>	: STABLE
<b>HAZARDOUS POLYMERIZATION</b>	: WILL NOT OCCUR
<b>CONDITIONS AND MATERIALS TO AVOID</b>	: AVOID HEAT, OPEN FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	: THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

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## 11. ENVIRONMENTAL PROTECTION

<b>SPILL OR LEAK PROCEDURES</b>	: SCOOP UP EXCESS GREASE. CLEAN AREA WITH APPROPRIATE CLEANER.
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## 12. TRANSPORT HAZARDS

NOT CLASSIFIED AS HAZARDOUS FOR TRANSPORT.

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## 13. REGULATORY INFORMATION

EC Classification	: Not classified as dangerous under EC criteria.
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#### 14. SPECIAL PRECAUTIONS

STORE IN UPRIGHT POSITION IN COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAME AND HIGH TEMPERATURES.

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES THAT CANNOT BE DECONTAMINATED.

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#### 15. OTHER INFORMATION

<b>Compiled By</b>	:	P&AD Department, Bharat Petroleum Corporation Limited, “ A ” Installation, Sewree (East), Mumbai – 400 015.
Technical Contact No.	:	9122 – 24176354
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