



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME : MAK LL 3 GREASE

PRODUCT TYPE : LUBRICATING GREASE

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

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.

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.

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 CO₂. 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.

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.

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.

9. PHYSICAL DATA

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

10. REACTIVITY / STABILITY

STABILITY	: STABLE
HAZARDOUS POLYMERIZATION	: WILL NOT OCCUR
CONDITIONS AND MATERIALS TO AVOID	: AVOID HEAT, OPEN FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS	: 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.

11. ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES	: SCOOP UP EXCESS GREASE. CLEAN AREA WITH APPROPRIATE CLEANER.
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12. TRANSPORT HAZARDS

NOT CLASSIFIED AS HAZARDOUS FOR TRANSPORT.

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.

15. OTHER INFORMATION

Compiled By	:	P&AD Department, Bharat Petroleum Corporation Limited, “A” Installation, Sewree (East), Mumbai – 400 015.
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